Some Aspects of Banking Theory

Steiner

With the compliments of

W. A. Dunn

Oct. 29, 1920.

Some Aspects of Banking Theory

BY

WILLIAM HOWARD STEINER, B. S., A. M.

*Assistant Director, Division of Analysis and Research,
Federal Reserve Board*

NEW YORK
W. D. GRAY, 106 SEVENTH AVE.
1920

TO
F. T. S.

PREFACE

In the study which follows, an attempt has been made to select for detailed analysis certain aspects of the institution of banking which it is believed are of fundamental importance for an understanding of the rôle which banking plays in modern economic society. The aim has not only determined the general character of the topics discussed, but has also set definite limits to the scope of the study and to the problems which are considered. The operation of the banking system as a whole is of interest, rather than the question of its technical organization, while for the purpose at hand the reserve problem is of little consequence, and neither it nor the influence which the banking system may exert upon general prices has been discussed at length. The aim has likewise influenced the method of treatment. The analysis proceeds almost entirely upon the real as distinguished from the pecuniary level, and the psychology of credit has not been considered. At the same time, however, due attention has been given to the evolutionary character of the modern institution of banking, and the assistance obtained therefrom in arriving at a better understanding of the institution itself. Inasmuch as the purpose has been primarily constructive rather than critical, mention has been made of other writers only incidentally, in connection with the discussion of specific problems. No attempt has been made to indicate those who

originally formulated the various doctrines mentioned, and there is given merely the statement which is believed to be best suited to the purposes of the particular discussion.

The writer is indebted to Mr. H. Parker Willis, Professor of Banking in Columbia University, for reading tentative drafts of several parts at an early stage of the work, as well as for reading the completed manuscript, and making many helpful suggestions. Acknowledgment is also due Dr. H. R. Seager, Professor of Political Economy in the same institution, for reading the first six chapters, and making suggestions on certain points.

37 Liberty Street, New York,
August 1, 1920

CONTENTS

CHAPTER I

THE EVOLUTION OF BANKING

CHAPTER II

BANKING IN THE PRESENT ECONOMIC ORDER

CHAPTER III

COMMERCIAL BANKING

CHAPTER IV

SOME FURTHER ASPECTS OF COMMERCIAL BANKING

CHAPTER V

SOME FURTHER ASPECTS OF COMMERCIAL BANKING (*Cont.*)

CHAPTER VI

INVESTMENT BANKING

CHAPTER VII

OPERATION OF THE BANKING SYSTEM

CHAPTER I

THE EVOLUTION OF BANKING

1. The general economic conditions of the age mold the special economic institutions which exist. The institution of banking is no exception to this precept. Thus it is necessary to trace what for us are the later stages in economic evolution in order to understand the evolution of banking. For evolution it is; there is an organic process, not a mere series of disconnected events. Just as the life of an individual may be conceived of as a process of progressive self-realization, so also does the life history of an institution reveal a progressive unfolding; the process, apparently haphazard, its course often at present not discernable, is yet purposive. There are ends towards which the stream is flowing, although when the ends appear in a measure to be attained, perhaps even before, the ends themselves appear to fade, and a new goal, the child of the new conditions, peers above the horizon. Such is the story of the development of banking.

Banking represents basically a specialized technique in the supply of capital. In the struggle with nature, man has found it necessary to arm himself with certain technical equipment, which grows more and more elaborate with the passage of time. With the increase in the complexity of the equipment, the task of obtaining it assumes larger proportions. The individual must cease to rely solely upon his own efforts and his own resources; instead, a cooperative

feature is introduced. Waiving discussion of possible hypothetical situations in a primitive economy, the development of this upon any considerable scale implies the use of what we generically term "money," as well as the institution of certain legal relationships, either express or implied. This cooperation may take a form typified either by the loan or by the partnership or company. The increase in the scale of enterprise, with its need of increased resources, at once creates a greater demand for service in obtaining funds, and at the same time increases the difficulty of the task. In consequence, specialization—a universal rule of economic life—develops. A specialized institution—banking—is gradually evolved. The purpose for which the intermediary is created may conveniently be considered as two-fold: either to assemble and transmit part or all of the permanent capital equipment required by the enterprise, or instead to assemble and transmit merely part or all of the circulating capital required,[1] in which event both the operation to which the funds are applied and the length of the loan are relatively restricted. Gradually there arises recognition of the fact that cooperation of the second kind may be effected among the business community as a whole, which then acts both as recipient and as source of supply of the circulating capital required, rather than merely as recipient of capital supplied by a distinct class of investors. With economic advancement comes advance in the methods by which cooperation is effected, and the cooperation becomes more widespread, at the same time that it becomes more sharply differentiated from cooperation of the other variety. In short, banking itself becomes two-fold; the institution of

[1] The permanent capital equipment of course may consist of both fixed and circulating capital, as in the case of the manufacturing enterprise, or largely of circulating capital only, as in the case of the wholesale house. For a discussion of fixed and circulating capital, cf. Ch. II, Section 4.

commercial banking must be clearly distinguished from the institution of investment banking.

But this is by no means the entire story. Banking as we know it today is a blanket term. Moreover, it is rather a modern conception. Certain of the technical methods have undergone great change, while new ones have been developed. True, the loan, the note and the deposit are with us yet, but the resemblance is in many ways more apparent than real. In their modern form they represent rather the result of the progressive adaptation of old devices to the needs of the modern situation as it has developed. In assigning to the term banking its modern connotation, we may say that under earlier conditions banking did not—could not—exist. It may be said to represent the historical time coalescence of several classes of business which have had a mutually more or less independent historical development. To employ the familiar illustration, commercial banking involves simultaneously supplying of capital and purveyance of currency. Moreover, the institution itself has become Janus-faced; in performing the one service it automatically performs the other. The details we shall see in the pages which follow. Suffice it to note at this point that the Janus-faced character is due in large part to the fact that this development has in general followed the line of social least resistance. With the rise of new social wants, it is often found that the simplest method of satisfying these wants is thru the adaptation of an existing institution, the interests of which are somewhat akin, rather than thru the creation of a new institution. At the same time that the process of integration goes on, a process of differentiation occurs. There is a sort of ceaseless ebb and flow; various strands are continually joining together, and just as continually others are splitting off. Our study consists in carving out a period in time, commencing sufficiently prior to the present situation to enable an intelligent

understanding of the conditions now existing. We consider how the various strands at present joined together have come to make up the current situation, at the same time that we take cognizance of the strands which have broken away. The central problem is to attempt to visualize the present situation; to understand what the institution of banking is, and what it is doing. But this involves a consideration of how it came to assume its present form; only by reference to its historic origins can it be understood. Hence the present chapter.

In consequence, too, the historic problem before us shifts. For the problem in hand, the conventional discussion of the history of banking affords little aid. The most significant thing is by no means the etymologic derivation of the word "bank," whether from "bench" or from "pile" or "heap." Nor does detailed description of the methods employed by the Argentarii, the Fugger, the goldsmith bankers and others suffice. In short, the problem is not one of structure, but one of function.[2] Banking then will concern us, rather than the bank. Attempted distinction along structural lines, while it has been the general rule in the treatment of economic phenomena in the past, due perhaps to the greater obviousness of structure as compared with function, is not only arbitrary, but misleading as well. Slight reflection will serve to show that the accuracy seemingly obtained must needs be specious. That human relationships and the institutions which express these relationships, are complex, is a truism. The theory of multiple correlation must be applied; linear correlation does not suffice. Social, and more particularly for one purpose, economic institutions are pro-

[2] The functional concept is well illustrated by the problem of the shares in distribution as contrasted with both personal distribution and the ethical appraisal of the shares often attempted. Another instance is afforded by J. B. Clark's units of productive power as contrasted with the actual workers themselves.

ducts of evolution, and this, as just indicated, has been along the line of social least resistance. While a given structural product thus has a basic economic function, subsidiary activities, which later may attain coordinate rank, are often added, the outlines are blurred as a result, and soon lost. The economies of large scale operation, for example, may in certain cases render desirable the addition of a fiduciary department by a bank doing chiefly a commercial business, and vice versa. Or, again, the performance of the basic function necessarily implies certain methods of performing the same, some of which may be employed by other classes of organizations having vitally different basic functions. The structural cleavage, in other words, need not correspond to the functional.

The immediate problems before us are two-fold: in the evolution, how have the functions which are now performed by the institution of banking come together, and how have the detailed methods of performance, that is, the technique, involved therein, developed?

2. The modern institution of banking has its roots in the Middle Ages, and accordingly there our study must commence. With the cycle of economic life which had its culmination in the eternal city on the banks of the Tiber we need not detain ourselves. Likewise, for the purpose at hand the centuries preceding the Crusades may well be denominated the Dark Ages, though perhaps this is due to our lack of knowledge. But we accept the heritage which the twelfth century had from its predecessors, and at that point commence our contemplation of the factors in the everchanging situation which bear a more direct relation to the present situation.

The attempt has often been made, in particular by the members of the German historical school, to select one definite criterion by means of which to distinguish the various

stages in the process of economic evolution.[3] In general, differences represented are primarily in the angle from which the phenomenon is viewed. Each gives a partial picture. For the present purpose we may well recognize the validity of the contentions of the partisans of each of the divergent criteria. Banking, as we have seen, presents many phases, and in its development is related more closely now to this, now to that aspect of general economic development. In short, we require, not a choice from among, but rather a synthesis of, existing criteria. We must, however, select from the multitude of facts available, and have confined ourselves strictly to those most pertinent to the problem at hand.

For the student of banking, the outstanding feature of the earlier Middle Ages is the lack of structural differentiation between capital supply and commerce. Only later do we find business enterprises whose operations may be

[3] Among more recent discussions of the problem may be mentioned that in the opening pages of Liefmann, Beteiligungs-u. Financierungsgesellschaften, Zweite vermehrte Auflage, Jena, 1913, where the author attempts to lay the theoretic foundation for his later study of financial organizations. In contrast to his view, which regards the problem as one of changes in capital forms, may be mentioned that of Commons, A Documentary History of American Industrial Society, Vol. III, Cleveland, 1910, Introduction, where the influence of markets upon the form of economic organization is stressed. In justice to the authors mentioned, it must be stated, however, that both represent rather an attempt to select a criterion believed to be of special significance for the solution of the particular problem at hand, and not an attempt to set up a general criterion of economic evolution. Mention need only be made, among older discussions, of the controversy raised by Bruno Hildebrand's attempt in his Natural-, Geld-und Creditwirtschaft, Jahrbücher für Nationalökonomie und Statistik, Zweiter Band, 1864, pp. 1-24, to find the criterion in exchange, and thus dividing the stages into natural, monetary and credit economy.

termed purely financial. Perhaps the best known illustration of the transition is afforded by the Italian and Upper German merchants, which development, Ehrenberg tells us, had been practically completed by 1640.[4] The same phenomenon, however, may be observed time and time again, principally according to the degree of economic advancement, though also according to the availability of the existing organization, as in the case of the goldsmith bankers or the London acceptance houses. In short, in point of time there is no absolute line of demarcation possible; each nation, we may almost say, has had its Middle Ages. As Dunbar has pointed out,[5] a distinct hierarchy move across the stage—the Italians (and Germans), the later Dutch, and the still later English, each economically representing the same stage of development.

Simultaneous with this transition is the general development of the forerunners of various of the technical devices which are familiar today. Loan and deposit, as is well known, are two objective sides of the same phenomenon. The recognition of a class of deposit as distinct from loan marks an advance, in that it represents the recognition of a distinct organization which administers these deposits. In the early Middle Ages, the deposits received by the great mercantile houses, while all representing savings, originated from several sources—the shares of retired or deceased partners retained in the business, and in some cases funds obtained from relatives and friends of the house, both bearing a fixed rate of interest, also sums obtained from the clergy and larger capitalists, as well as from widows and orphans. These deposits were used in the ordinary course of the business, to a considerable extent in trading in goods

[4] Das Zeitalter der Fugger, Jena, 1896, Vol. I, p. 378.

[5] The Bank of Venice, Quarterly Journal of Economics, Vol.

of various descriptions handled by the particular enterprise. In other words, these houses themselves obtained from other classes by means of the deposit principle part of the capital they required.[6] The depositor may be said to have been a species of bondholder repayable on demand, though possessing no special security. An investment operation is represented. It is interesting to observe that this device was also employed in public finance as well as in private.[7] Considerable risk is, however, involved in the procedure. The development was essentially empirical, and it is not surprising to find that the method of trial and error often led to serious difficulty.

The loans which were made in addition to direct employment of funds in ordinary business operations, were represented largely by advances to Government. From one point of view, such loans may be considered merely as the financing of one particular class of enterprise. Although of overshadowing importance at the time, this early relation of banking to the fiscal needs of the State may be dismissed briefly. What is now recognized as an evil, necessary, but nevertheless an evil, was then regarded as highly advantageous. As the potentate has given way to the modern State, so also have the fiscal needs of Government become subordinated to the general social welfare. The State now ordinarily takes its place in the loan market upon the same

VI, 1892, pp. 308-335. Reprinted in Economic Essays, New York, 1904, pp. 143-167.

[6] Cf., e. g., Dunbar, Economic Essays, op. cit., p. 149. The best evidence ,however, is afforded by a study of the balance sheets presented by Ehrenberg, op. cit., in his description of the operations of the various houses.

[7] Cf. Ehrenberg, op. cit., Vol. II, pp. 78, 274, 309, for instances of employment, both actual and contemplated, principally by the French crown.

basis as other borrowers; except in times of great immediate need, it does not dominate the general financial situation. This has involved the disassociation of banking and public finance; the latter represents one of the shoots which has split off as increasing specialization has developed.

The other form of loan is typified in the bill of exchange, and in a two-fold way.[8] From one point of view it represents a raising of funds by the process of the finance bill rather than through the deposit, and as such is a technical banking device; from the other point of view, it represents the commercial transaction. By both these means, pooling of the circulating capital of mercantile enterprises is effected; the house with surplus capital at the moment relinquishes it in favor of the house which finds its capital insufficient for its present needs. But direct contact between borrowing and lending house is required. Through the absence of an institution of banking structurally distinct from commercial enterprise, and thus holding deposits of business enterprises, there is not effected the automatic application of the surplus of one business enterprise to the deficit of another which characterizes the modern situation. The surplus funds of another business enterprise must be obtained either through purchase from it on time, or else through the sale to it of a bill of exchange or other obligation. On the other hand, the dovetailing of circulating capital surpluses and deficits of business enterprises is ren-

[8] The actual business and commercial practice of the Middle Ages with respect to these matters remains in considerable obscurity, principally because the problem is usually never raised. Possibly Japanese practice prior to the establishment of the present dynasty in 1868 might afford valuable data for a study of this kind, and be illuminating as to credit customs, etc., for this stage of economic development. The treatment in Goldschmidt, Universalgeschichte des Handelsrechts, Stuttgart, 1891, is by no means entirely satisfactory for our present purpose.

dered more difficult under an economic system such as then prevailed. In the absence of a regular economic process in which goods pass through a series of stages, yielding periodically a liquidating counter flow of funds as they emerge from one stage and enter the next, no regular automatic liquidation of loans is assured. In short, there is no pool of commercial financing operated in the manner with which we are at present familiar.[9] The difference just noted in the character of the economic process is typified by the economic theory developed to explain the existing situation. Pre Smithian economics, in fact based upon the theory of the circulation of wealth, sharply differentiates earlier from present conditions, with the current conception of the production and distribution of wealth. Even where there is structural differentiation between capital supply and commerce, a narrower field only exists within which cooperative application of circulating capital may be effected, or to which the capital gathered from individual investors may be applied. That the doctrine of the Church concerning usury was due to the use of loans for purposes of consumption has become a commonplace,[10] although the breaches made in the doctrine go hand in hand with the gradual development of commerce. The difference in the conception of the economic process is also reflected in the difference in the relative importance ascribable to industry and to trade. In the period considered, the handicraft system typified industry, while trade in its financial ramifications was concerned in large measure with *Grosshandel,* largely speculative in character, and the foreign trade. Both present con-

[9] For a discussion of the economic conditions which are influential in determining the character of commercial banking, cf. Section 4.

[10] The doctrine was due also to the lack of a theory of capital, confusion existing between capital, which was in large part circulating rather than fixed, and money.

siderable difficulty for the operation of the institution of banking.

During the period under review, the relation of banking to commerce should be approached rather from the point of view of the system of commercial payments. This system must surmount a two-fold difficulty, that of distance, and that of difference in currency systems. To the second is due the rise of the money changers, to whom Ehrenberg and Knies relate banking historically.[11] Confined at first solely to the business of the house itself, later payments were effected in this manner also for others. The device then has become a means of economizing in the use of the existing monetary supply. In due time, this development was carried further in the fairs or *Messen* which arose, with their technical apparatus for the cancellation of indebtedness, and thus provided an approximation to the modern clearing system.

3. The failure often attendant upon the use of the trial and error method in the employment of deposits, which has been remarked above, has been long continued, and has led to the employment of various remedial devices. Among these devices, we may mention the creation in certain cases of organizations designed solely to act as intermediaries, and in many cases the prohibition of combination of active and passive credit business. Where such prohibition exists,

[11]Op. cit., Vol. I, pp. 48, 69; Der Credit, Zweite Hälfte, Berlin, 1879, pp. 217 ff. As was pointed out in the preceding section, the many fold roots of banking make the question of choice between the various sources primarily a matter of emphasis, and in consequence no general agreement exists as to the basic source. Thus, e. g., Nasse and Lexis, Handwörterbuch der Staatswissenschaften, Zweiter Band, Zweite Auflage, Jena, 1899, p. 132, state: "In diesem Geschäfte (Kassenführung) wurzeln die geschäftlichen Anfänge alles Bankbetriebes."

it is felt that capital supply and the system of payments must be dissociated. Such organizations represent an attempt to grapple with the problem anew, by means of special organizations created for the particular purpose, rather than by means of adaptation of older existing bodies. Organizations of the restricted scope just mentioned, however, are of little importance from the point of view of the evolution of a technique for the supply of capital. Instead, they represent rather a development in the currency system—an application of the clearing principle—and in the administration of the funds of the individual business enterprise, in which character they act as a species of fiscal agent, performing what has been conventionally described as *Kassenführung*.[12] It should be noted that organizations so restricted in scope sooner or later enlarge their activities, engaging in loan operations.

More important for our purpose is the gradual rise of a distinct institution of commercial banking as contrasted with an institution of investment banking, and the gradual recognition of a distinctive character appertaining to each. This tendency is accompanied by a tendency towards structural cleavage corresponding broadly to the functional demarcation. The process, however, is one of slow evolution, and presents few outstanding features. Continuing throughout the period under review, it is also found in the succeeding period, and in increased degree. In fact, the recognition of a distinct institution of commercial banking may be regarded for our purpose as one of the two outstanding features of the nineteenth century.

[12] Perhaps the best known illustration is afforded by the Bank of Amsterdam. Mention should also be made of the Italian banks centuries before, likewise of the goldsmith bankers in their early days, though the last named were of course of a strictly private character.

A characteristic of the modern institution of commercial banking, found also in certain cases in investment banking, is the application of the credit principle to the currency system—concretely, the use of credit instruments as currency, and more particularly for our purpose, the use of banking obligations in this fashion. This acceptance of banking credit as currency is but the logical outgrowth of the recognition of a distinctive position occupied by banking, which was previously remarked. The evolution of credit currency and the control thereof by banking is the outstanding feature of the period under review. Highly significant for our purpose, too, is the fact that the currency system thus at the same time has become a means whereby capital is loaned.[13] Were this feature absent, the technique of capital supply might conceivably be far different than it now is. Viewed merely as a process whereby capital is supplied, banking is entirely possible where money, and not credit currency supplied by it is in use. Money would then be received, credited to the depositor's account, and loaned to another, who took it away. This is in fact the original form, and provides the older conception.[14] The modern process, however, is far subtler, as will be indicated

[13] The place of this development in currency evolution may be indicated as follows: In the evolutionary process four stages (abstracting from inconvertible paper money) may be roughly recognized, each marked by the appearance of the form noted, in addition to those previously in existence, (1) commodity money (2) government representative and convertible paper money (3) bank notes (4) bank deposits. The cleavage of great significance for the student of banking appears between the second and third stages, due to the change in the issuer. It is here that we remark the coalescence of capital supply and currency.

[14] Subsequent to the deposit for safe-keeping only. For a statement of this well known point, cf. Wagner, Beiträge zur Lehre von den Banken, Leipzig, 1857, pp. 49-50.

at greater length below. Suffice it here to point out that in the use of banking obligations as currency, the bank relinquishes its rights to another party before control over any capital whatsoever is actually transferred to it, and a reversal of the time sequence in the loan operation appears to result. We see here clearly that only through consideration of historic origins and development may we arrive at a proper understanding of the interrelations of the three C's —credit, capital and currency—in the modern economic order.[15]

The further question arises of the form which the credit currency shall assume. To the student of banking at the present day, the substantial indentity of notes and deposits is practically a truism, the clearest method of proof of the same treating the difference between the two forms as one of accounting technique, in that with the one form merely one general account—notes outstanding—is written on the ledger, instead of separate accounts with each of the individual creditors. Changes in the aggregate amount alone are noted. From this point of view, the difference between notes and deposits is substantially similar to that between coupon and registered bonds. In view of the well-known fact that the deposit represents the earlier form historically, it becomes interesting to inquire into the reasons for the less

[15] The customary approach is illustrated in the following quotation from J. M. Keynes, in his review of Hobson, Gold, Prices and Wages, Economic Journal, Vol. XXIII, 1913, p. 396. "The second confusion . . . is between the two senses of the word 'credit,' the sense in which it stands for the method by which the control of liquid wealth is temporarily transferred from those who have less need of it to those who have more, and the sense in which it stands for methods of making payment and effecting exchanges without the use of actual coin. There is, of course, no necessary connection whatever between these two."

rapid growth of the earlier device during the period under review, and the rapid rate at which it has forged ahead during the second half of the nineteenth century. Why did the deposit system, first in the field, lag behind in the early stages, so that the rise of the note system was an outstanding feature of the eighteenth century, and why has it since been succeeded by the deposit system as the principal factor in the currency system?

It becomes necessary at the outset to distinguish clearly between evidence of the existence of the obligation and the means of transferring the same. Under the deposit system, there are two corresponding constituent elements, the statement of the account and the cheque; under the note system both are combined in the note. These are present both in the earlier form, in which there has been a prior deposit, and in the modern form, in which the initial deposit is dispensed with. In satisfying the need for an increased circulating medium by means of the more economical principle of credit currency, the line of social least resistance would naturally be followed. This demanded, as most closely related to the existing currency system, a form of currency which combined both evidence of the obligation and means of transfer thereof, and thus would circulate from hand to hand. The factor is, of course, basically psychologic and sociologic in character. This currency system, in which the note is chiefly employed, implies a situation in which there is lack of differentiation between commercial and investment banking. By means of the note, the savings of the people are gathered and transmitted to business enterprises, rather than cooperation effected among the latter with respect to their circulating capital resources and requirements. Attention is called to the desirability of the second species of cooperation when increased capital equipment is required, and hence the great turning point

is afforded by the Industrial Revolution. Inasmuch as the deposit system is recognized as superior for the business enterprise, and hence its employment accompanies the operation of commercial banking on a widespread scale, it may be regarded as a concomitant of the Industrial Revolution. Moreover, in the transition to distinct institutions of commercial banking and investment banking, with increased stress placed upon the instrumental good, and the rise of business enterprises dealing exclusively therein, the influence exercised by the business world in the determination of the technique of currency supply is increased, and the consuming public occupies a less important rôle in this respect than previously. It should be remarked that the value of the deposit system for the business enterprise is seen also in the not inconsiderable development of it which occurred in the period in which the great growth of the note system took place.

4. The outstanding features of the nineteenth century for our purpose are the rise of a distinctive institution of commercial banking, and the change from the note system to the deposit system which accompanied it. Both, however, represent an accelerated pace of a development which had already commenced, rather than a strictly new phenomenon. Having considered the transition from the note to the deposit system, and the relations thereof to the evolution of the institution of commercial banking, we may turn now to the rise of commercial banking itself.

In modern economic society there is a gap in time between the sale of a good and the payment of the purchase price by the purchaser. The origins of the gap in time—the principal motive forces behind its development—are complex, and various explanations may be advanced. Chief among these are (1) currency difficulties, and the desire to economize in the use of commodity money, thus, for example, permitting the cancellation of indebtedness at the fairs by

application of the clearing principle,[16] (2) difference in location of buyer and seller, and transportation difficulties encountered, and (3) difference in relative economic strength of buyer and seller, the middleman gradually acquiring the ascendency in the financing process.[17] The last named factor is of course to be taken in conjunction with the increased demands for capital equipment called forth by the modern order, as well as with the fact that with production for a market the enterprises in the various stages in the economic process are forced to invest in a stock of goods and in the later stages at least can only effect payment therefor as part of this stock is sold. More important for our present purpose, however, is it to remark that at the present time the gap in time roughly corresponds to the production period—the time required to pass the goods through the buyer's stage of the economic process. The number of these stages, while increased, has become relatively standardized, as well as the time required to pass the goods through each stage, both purely marketing and industrial, the latter of which has been standardized by the Industrial Revolution. The conception derived from foreign trade, which is still prevalent to some extent in that sphere today[18] —that the time should be sufficient to place the goods in stock—is discarded. The implication of a regular economic process, divided into a series of stages, conventionally typified by manufacturer, whoesaler and retailer, represents a change in the conception of the economic process—as pre-

[16] Cf. Ehrenberg. op. cit., Vol. II, pp. 111-112.

[17] This is a familiar phenomenon. Cf., e. g., Usher, The Parisian Bill Market in the Seventeenth Century, Journal of Political Economy, Vol. XXIV, 1916, pp. 993-994; Shaw, Some Problems in Market Distribution, Cambridge, 1915, pp. 69ff; Sombart, The Quintessence of Capitalism (translated and edited by M. Epstein), London, 1915, pp. 93ff. The point is closely related historically to the transition from domestic to factory system.

viously pointed out, it becomes the production of wealth, not merely its circulation. There is a regular and recurring flow of goods from raw material to ultimate consumption good.

The existence of the gap in time means that ordinary business enterprises in many cases borrow part of the circulating capital they require. This capital it has become the function of commercial banking to supply, which mediates in first instance between buyer and seller in adjacent stages in the economic process. Commercial banking thus represents a specialized technique for the distribution of the existing circulating capital of society, accomplishing its function through bridging the gap in time existing between the sale of a good and the payment of the purchase price by the purchaser. Whereas, in the case of the sale on time, the loan which in effect results is made only by the enterprise with which the buyer has direct dealings, through the institution of commercial banking the total circulating capital resources of society are potentially available to meet his needs. For the individual business enterprise, the borrowing which occurred rather as a last resort in earlier times now becomes part and parcel of its regular operations. It must be understood, however, that this development is at present in process of working itself out. By no means does it represent an end which has been achieved, but rather a goal towards which the events of the near past have shaped

[18] Cf. Wolfe, Foreign Credits, Special Agents Series No. 62, Bureau of Foreign and Domestic Commerce, 1913, p. 114, who states that "the major portion of American manufacturers willing to grant credit abroad are wisely in favor of restricted credit terms, sufficient to allow the customer to receive his goods, examine them, and place them in stock." In this sphere, however, it represents at the present time rather a device to force the buyer to obtain accommodation at his local bank, instead of relying upon the exporter.

themselves, and towards which such events are at present directed. As yet, the pooling is partial, and is much more widespread in certain directions than in others. An empirical process of realization is taking place. It should be remarked that by no means has the process been merely one of expansion, more or less gradual, of the area within which cooperation in the gathering and distribution of circulating capital takes place, but that, accompanying this increase in area, there has been evolution in the technique by which this cooperation is effected.

The change mentioned above in the conception of the economic process typifies—interprets—an actual change in the economic process itself. Moreover, this change in economic conditions has paralleled—has both rendered possible and rendered desirable—the development of the institution of commercial banking. Let us, therefore, consider certain of the well-known phenomena in the economic transition from this point of view.[19] Mention has been made above of the element of certainty introduced into economic life; the risk element has been reduced to a relatively more or less calculable basis. The contrast between mediaeval and modern conditions may be exemplified in the contrast between the spice trade and the steel industry. At the same time, the modern economic process in its industrial phases is rhythmic rather than strictly regular in a static sense, and regular ebb and flow occurs. Hence a cooperative application of the social circulating capital will be desirable. Moreover, the field included has broadened. In place of the customary industrial economy of the Middle Ages in general unsuited to a pooling arrangement, in part at least because of lack of change in minimum and maximum capital needs,

[19] It will be observed that the discussion which follows deals largely with industrial organization and production, whereas the previous discusion was confined primarily to marketing.

and with its smaller sphere of trade unsuited because of the risk element, we have now a regularized and rhythmic process extending broadly throughout our economic life.

The increase in productivity may next be mentioned. This coincides broadly with the transition from an agricultural to an industrial society. In the agricultural stage the surplus above the existence minimum is small.[20] It is obvious that with a small social product, confined largely to necessary consumption goods, there is little field for the operation of commercial banking. The opportunity is afforded by the rise of the intermediate good resulting from the change in the technical processes of industry, in equipment and in consequent organization, which constitute in a broad way what is termed the Industrial Revolution. We need not concern ourselves with the controversy as to whether or not the process has been lengthened, and the ingenious attempts which have been made at reconcilement of the two opposing views.[21] Significant for our purpose is the fact that there has been both an increase in the amount of capital required by the individual enterprise,[22] and a change in the nature of this capital equipment. From the first point of view we may say that the history of the corporation, representing as it does modern large scale industry, is the history of commercial banking. Pressure for additional capital causes economy in the application of the available supply. It should be noted also that the absolute amount of circu-

[20] Otherwise stated, in the industrial stage a smaller proportion of the population care for the bare wants of subsistence of all.

[21] Cf., e. g., Sombart, Der moderne Kapitalismus, Leipzig, 1902, Vol. II, pp. 70ff.

[22] The superior flexibility from the point of view of the individual business enterprise of the system of cooperation over that of direct holding of maximum capital requirements is readily apparent.

lating capital required tends to increase, due to the fact that industry is now based upon production for a market. Production to order requires stocking up only with raw material; production for a market requires in addition an investment in fluid capital representing outlays for wages. Moreover, the advantages arising from cooperative application of the social circulating capital may well be enhanced where such production for a market is the general practice. On the other hand, it is important to note that fixed capital now takes its place alongside circulating. With the increase in the proportion of fixed to circulating capital, a cooperative holding of circulating capital is rendered possible. The phenomenon, of course, is psychologic, while, at the same time, the process also involves greater socialization of pecuniary relations. We see that, while exchange has ordinarily been conceived of as the peculiar sphere of commercial banking, and the economic texts treat the latter in connection with the exchange of wealth, it is the rise of modern industry which has carried in its wake the rise of the institution of commercial banking.

The change which has been indicated is typified by change in relative importance assigned to collateral loan and commercial loan. The loan during the earlier part of the development, due perhaps in considerable measure to lack of confidence, was predicated upon collateral in the form of actually existing goods having a more or less ready market. Where this type of loan is predominant, we generally find prevalent a pawnshop conception of banking—the idea of "coining wealth into purchasing power," as it has been phrased.[23] It is only later that we have the conception of

[23] The examples of this conception are far too numerous for complete mention. Among the relatively later instances should be noted the frequent attempts to base currency upon land, the notes to be issued to those who turned in the lands. The specific

an institution of commercial banking standing in a regular and definite relation to the economic process, assisting in the passage of goods through the stages of the process, and in so doing, making cooperative application of the circulating capital held by society.

5. Coincident with the rapid growth of the institution of commercial banking during the last half of the previous century has been the development of the institution of investment banking. We have remarked above the gradual recognition of the distinctive character of each of these institutions, aided in considerable part by disastrous experiences arising from a lack of such recognition in loan operations. But it is only with the advent of the Industrial Revolution that investment banking has assumed prominence. The increase in the amount of the capital equipment required and in the scale of enterprise which occurred with the change in industrial technique is well known. Moreover a change—from lending to participation—occurs in the technique whereby such capital is supplied. The widespread adoption of the joint stock principle, due perhaps in large part to pressure for capital equipment as well as to certain legal advantages, provided a fertile field for the institution. In fact, we may say that the history of the corporation is also the history of investment banking. Auxiliary hereto, we have witnessed the growth of the institution of the security market, designed both to assist the flow of capital into investment and, just as important, to enable

doctrinal origins of the various forms assumed by the conception will be indicated at the appropriate stages of the exposition. Cf. pp. 58, 66, 70, 74, 133. The conception may be universalized as the coining of future prospects into present purchasing power. The instance noted the text then becomes a special case, involving finished goods which merely need a market to represent an actual contribution to the social product. This market, of course, may be readily available or not.

liquidation by those who have invested. The security market and investment banking have become complementary factors in the pool of investment financing, together mediating between the body of investors on the one hand and the body of business enterprises on the other.

CHAPTER II

BANKING IN THE PRESENT ECONOMIC ORDER

1. In 1892, Karl Menger wrote as follows: "The enigmatic phenomenon of money is even at this day without an explanation that satisfies; nor is there yet agreement on the most fundamental questions of its nature and functions. Even at this day we have no satisfactory theory of money."[1] Well might this observation be applied to the present status of banking theory. The confusion existing in this field is seen in the multiplicity of existing definitions of banking. While great diversity is exhibited, these definitions may conveniently be classified as belonging to one of several types.[2] First may be mentioned those based upon the principle of enumeration of operations conducted. As is well known, these consist usually in the statement that banking performs the two functions of acting as agency for the gathering of savings and for creating part of the medium of exchange,[3] or else, shifting to another level of the analysis, in a listing of the three devices by means of which the two operations just enumerated are performed—

[1] On the Origin of Money, Economic Journal, Vol. II, 1892, p. 240.

[2] For another classification, cf. Moulton, Commercial Banking and Capital Formation, I, Journal of Political Economy, Vol. XXVI, 1918, pp. 490 ff.

[3] Cf. Taussig, Principles of Economics, New York, 1911, Vol. I, p. 331. Compare also White, Money and Banking, Fourth Edition, Boston, 1911, p. 193, who, however, leans somewhat to the third type; and von Mises, Theorie des Geldes und der Umlaufsmittel, München und Leipzig, 1912, p. 297, who introduces also the idea of receipt and extension of credit by banking.

Dunbar's renowned deposit, discount and issue. Second may be mentioned those which select a single characteristic believed to possess peculiar significance. Mention may be made here of the view of Willis, who considers banking " a special mechanism for measuring and testing credit and determining its apportionment."[4] The third type consists of attempts to select a technical feature of operation whereby it may be possible to give logical coherence to the diverse activities enumerated under the first head. This usually consists in selecting the "creation" of loanable funds which have as a basis certain cash resources in the possession of the bank.[5]

It will be remarked that those who employ definitions of the above character in general confine their conception of banking to commercial banking, and the definition in effect becomes a definition of commercial banking. But another problem arises at this point. While the other conception has approached banking from the side of credit, and the traditional sphere of banking has been in exchange, the rise of the corporation and the increasing importance attached to raising its permanent capital equipment has caused serious doubt in many minds as to the legitimacy of this approach. Banking concerns itself with investment as well as with commercial operations; it is a two-fold institution. But how is this to be brought within the realm of banking as ordinarily defined? Two solutions have been proposed. The first has been stated by Moulton as follows: "It is im-

[4] In an unpublished lecture. Compare his statement of the guaranty function of banking, Ch. IV, Section 1. Dealing in credit is frequently selected. Cf., e. g., MacLeod, The Theory and Practice of Banking, 6th Ed., Vol. I, London, 1902, pp. 318-321, also Hawtrey, Currency and Credit, London, 1919, pp. 4, 191, who leans also to the third type.

[5] Cf., e. g., Moulton, op. cit., pp. 497, 508, who distinctly limits the definition to commercial banking, when viewed "simply as a routine business organization."

possible to give a precise definition of banking, for the reason that at one time or another the most widely differing economic functions or services have been designated by the term. Even now it includes various forms of financial operations based on substantially different principles."[6]

On the other hand, we may hold to the view of a common element, which we may note in fact is tacitly implied in the above quotation from Moulton in the use of the term "financial." This has usually been found in the economic service of banking as intermediary in the supply of capital. This definition of banking is in the view of those ascribing to the doctrine inclusive enough to cover both commercial and investment operations. The view came to prevail in modern Germany with the rapid growth of industrial concentration and the resulting increase in the activities of the great banks in the financing of industry, and it has been developed in particular in a series of studies dealing with investment banking organizations and activities. Found in varying forms in the works of Plenge,[7] Weber,[8] and Riesser,[9] it has been perhaps most fully developed by Lief-

[6] Principles of Money and Banking, Chicago, 1916, Part II, p. 3. Cf. also Wagner, Der Kredit und das Bankwesen, Schönberg, Handbuch der Politischen Oekonomie, Vierte Auflage, Erster Band, Tübingen, 1896, p. 456. This is the same line of argument as Jevons, Money and the Mechanism of Exchange, New York, 1907, pp. 242-5, when he speaks of the futility of attempting a definition of money. The view is implied in Knapp's treatment, Staatliche Theorie des Geldes, Leipzig, 1905, p. 117.

[7] Gründung und Geschichte des Credit Mobilier. Zwei Kapitel aus Anlagebanken, eine Einleitung in die Theorie des Anlagebankgeschäftes, Tübingen, 1903. See especially pp. 29-34. It is interesting to note that the earlier work of Sattler, Die Effektenbanken, Leipzig, 1890, p. 1, defines banking as dealing with "the service of economic institutions as intermediaries in monetary and credit exchanges." To the earlier Wagnerian conceptions of Geldbanken und Kreditbanken he adds a third category—

mann.[10] The service of banks has become "that branch of commerce whose peculiar function is to gather fluid capital, keep the same in stock, and place it at disposal. Banking is, in short, dealing in fluid capital (*Geldkapitalhandel*)." This conception of banking as involving the supply of capital is as old as the classicists: Ricardo himself implies an acceptance of it, though he does not expressly state it,[11] while Mill speaks of the transfer of capital already in existence by means of banks of deposit.[12] The view is also found in modern works stressing the credit aspect of banking, in some of which a separate chapter will be found dealing with the economic function of banking.[13] The banker "gathers capital from him who has it and does not need it, and transfers it to him who does not have it and needs it," to quote one of these versions.

Which of these definitions are we to choose? Our problem is not simplified by the fact that at first blush there appears to be an element of truth in each. The key to the dilemma is this: the above definitions represent an attempt to apply the older logical theory to evolutionary problems for the solution of which it is clearly inadequate.[14] The Janus-faced character of banking—that in performing one service it automatically performs another—which we remarked in the previous chapter, represents the welding together of several phases in the evolutionary process. Thus it is that banking, while unified and organic, is nevertheless

Effektenbanken. The continental tendency to broaden the scope of the term, as contrasted with the reverse English tendency, is already found in Knies, op. cit., pp. 215 ff.

[8] Depositenbanken und Spekulationsbanken. Ein Vergleich deutschen und englischen Bankwesens. Zweite, neu bearbeitete Auflage, München und Leipzig, 1915. Introduction.

[9] The German Great Banks and their Concentration in Connection with the Economic Development of Germany. National Monetary Commission Publications. Ch. 1.

capable in a sense of dissociation into several parts not strictly logically (according to the older logic) related to each other. It is at once several things according to the point of view from which it is regarded. The phenomenon is similar to the psychologic trick of an image carrying with it several mental suggestions to the observer, first one and then the other being uppermost, though the object itself does not change.[15] The futility of attempting a comprehensive definition will be readily apparent. In place of aiding the understanding of the institution of banking, which clarification is the only *raison d'être* of a definition, it would serve instead to confuse the matter.[16] Hence we will refrain from the attempt. Rather will it be more profitable to proceed at once to the analysis of the present situation—having seen the principal features in the evolution, to consider its present operation.

2. The most profitable approach to our analysis of the

[10] Op. cit., p. 592.

[11] Works, McCulloch's 2d Ed., London, 1852, p. 431. "A bank would never be established, if it obtained no other profits but those from the employment of its own capital; its real advantage comes only when it employs the capital of others."

[12] Principles of Political Economy, Ashley's edition, p. 513.

[13] Cf., e. g., Conant, Principles of Money and Banking, New York and London, 1905, Book V, Ch. III, and Agger, Organized Banking, New York, 1918, Ch. III.

[14] The similarity to Alfred Marshall's statement of what he terms the principle of continuity, in the preface to the first edition of his Principles of Economics, will be readily apparent. Cf. Third edition, London, 1895, p. xiii.

[15] This statement applies equally to money also.

[16] If it be argued that the central feature of a definition is the selection of the salient characteristic, mention may be made of the "method of odd cases," as it may be termed, a favorite device in economic argumentation in undermining another's attempt at a definition possessing sufficient scientific rigor.

position and operation of banking in the present economic order will be to regard it as a specialized technique in the supply of capital.[17] More simply phrased, and with several of the implications of the phrase stripped away, it may be regarded for the purpose at hand as commerce in capital. Considerable analogy may be drawn between commerce as ordinarily conceived and banking as commerce in a special commodity, whether we attempt an elaborate analysis, such as that of Shaw and Weld,[18] of the so-called marketing "functions," or whether we confine ourselves to the simpler triad of gathering the commodity, keeping the same in stock, and disposing thereof. The differences, however, are just as marked as are the analogies, in particular, e. g., with respect to the second of the three functions enumerated, and especially with respect to commercial banking and to investment banking in which the commercial banking principle is applied.[19] This accounts for the fact that the chief proponents of the view that banking is to be considered as commerce in capital have been students whose interest has been directed largely to investment banking. While it would appear that the most fruitful development of the conception would consist in an analysis of the manner in which banking performs the various "functions," this phase has generally been neglected, or else treated as subordinate. Liefmann, who has discussed the matter at some length,[20] has a different approach, and considers the problem merely because of the light which he believes it throws

[17] Though manifestly partial, as we have indicated in Ch. I, it supplies a satisfactory approach for the present problem.

[18] Shaw, op. cit., p. 76; Weld, Marketing Functions and Mercantile Organization, American Economic Review, Vol. VII, 1917, pp. 306-18.

[19] Cf. Ch. VI, Section 3.

[20] Op. cit., pp. 587ff.

upon the scope of banking. Specifically, the central problem to him is one of delimiting the sphere of banking, of determining which of the hetrogeneous group of organizations which possess in common alone the one feature of issuing securities, may be dignified by the name "bank," and which are to be placed without the pale. The problem is complicated by the structural specialization of function pronounced in investment banking, which accompanies the fact that the individual holder of securities bulks large in the pool of investment banking, as we shall see below.[21] As viewed by Liefmann, the problem may be stated as follows: How many of the classes of activity involved in marketing must be performed by an organization in order to entitle it to the name "bank"? This is really the old philosophic problem, is the whole greater than the sum of its parts. The phenomenon of subdivision of labor certainly should not be permitted to obscure the rôle played by the totality of the parts. For an understanding of the rôle of banking in modern economic society, the problem, as we have indicated in the preceding section, is of no significance. Rather does it serve to show the inadequacy of the mere conception of banking as commerce in capital, and point to the need of analyzing the relation to the economic process in which banking in its action in this capacity is placed. Only in this manner do we obtain an adequate understanding.

3. This involves a statement at the outset of the features which are of significance in the economic process, understanding by the term "economic process" all the activities which combine to produce the onward sweep of goods from producer to consumer. This economic process has been conventionally divided into stages, designed to represent the condition of the good at various steps in its evolution from raw material to finished product.[22] This device

[21] Section 5.

is of course at best a rough schematization, symbolic rather than strictly accurate. Yet in the process as a whole certain lines of division may be rather clearly perceived. Most fundamental for our purpose is the traditional distinction of the classicists between production and exchange. The former, having for its purpose the creation of potential form utility, may again be subdivided. Raw materials must be extracted. The road along which move these raw materials, either absolutely raw, such as iron ore, or partly manufactured, yet destined for passive service in the technical process, as pig iron, has two branches. According to the direction chosen, the finished products which result are either intermediate goods or consumption goods. While the former, as is also the case with what are destined to be final consumption goods, but as yet are only in partially finished form, possess only derived utility arising from and due entirely to the utility of the finished products which will be produced by them or into which they will be converted, for practical purposes the derived utility which they thus possess for the manufacturer or dealer who purchases them may be considered as occupying the same position as the actual utility—power of direct satisfaction of desire—possessed by the final consumption good. Exchange as distinct from production consists in the creation of potential time and place utilities, and in the bringing of these potential utilities into contact with users of the goods, so that actual utilities result. In so doing, the marketing "functions" we have remarked above are performed. Nor in a complex society in which production for a market must needs prevail in place of production for order, may the importance of these "functions" be minimized. The application of the staging conception to the classical conception of the economic process has resulted in the conventional representa-

[22] As, for example, by Menger and J. B. Clark.

tion of the process by a series consisting of the producer of raw material, the manufacturer or fashioner thereof into the finished product, the wholesaler, the retailer, and the consumer. The first two are concerned chiefly with the creation of form, the third and fourth with the creation of time and place utilities.

The distinction here made between production and exchange is roughly that known to the business world between manufacturing and commerce. Yet the term "commerce" has also a wider connotation, and it occurs very largely in raw materials as well. It is here that concession must be made to the structural. Thus far we have considered primarily the economic process as distinct from the economic order. But the economic order in composition does not, as we have hitherto assumed, exactly correspond to the economic process; structural division does not closely parallel functional. Not only has subdivision of labor created structural agencies which specialize in particular stages of the process, but agencies which confine their activity entirely to the marketing "function" are to be found in the stage of the process which we have classified as production. Nor is specialization of "function" requisite; any conceivable combination of activities may exist, provided usually merely that the handling of the good be continuous. Each business enterprise in the course of its activity goes through the same process as does society as a whole in carrying on the economic process in its totality, except that the so-called middlemen omit the manufacturing process. Each enterprise creates not only potential but actual utilities as well. Manufacturer as well as middleman creates time and place utilities. Thus he buys what for him may be termed raw materials, manufactures them perhaps into more refined products, and markets these products. The burden of misdirection of his pro-

ductive activity must be borne by him alone. Thus is the economic process reproduced in miniature. This involves for each economic unit, no matter where in the economic process as a whole it may primarily be placed, the performance of all the "functions." [23]

4. It will be apparent that the material equipment of the business enterprise is of two kinds. First is the material which is to be transformed in the process—of which a different form utility is to be created by the manufacturer, and which itself thus passes directly stage by stage through the process until it reaches its final form and is brought to its final use.[24] The other is the technical equipment required, which in conjunction with goods of the first description merely yields at regularly recurring intervals a series of products which pass through the stages in the process. In brief, the distinction is between passive and active employment in the economic process. The capital, for such it is, required in the process, must be divided into two kinds; we have then the conventional distinction between circulating capital and fixed capital.[25] Against the volume of industrial capital or capital goods just mentioned is to be set the volume of pecuniary capital—the expression in terms of the monetary unit of the current valuation placed upon the goods which it represents.[26] Significant for our purpose is the fact that the circulating capital of the business enterprise is held now in industrial, now in pecuniary form, as the goods are in process of manufacture, or have been sold. To the business enterprise, both goods in works and the funds received from sales of its completed product

[23] We see in fact that the marketing "functions" when analyzed in detail supply also a more detailed representation of the process as a whole.

[24] It will be apparent that only time and place utility creation may occur in the later stages.

represent part of its circulating capital,[27] and there is continual flow from one form to the other, and vice versa, as the goods in question complete or commence their passage through its stage of the economic process.

The relation of this fact to the duration of time for which the capital is necessarily supplied is obvious. In the one case, the capital is again available in pecuniary form after a considerable period of time, as the successive usufructs accumulate; in the other, its pecuniary value is released shortly.[28] In other words, the one in the absence of certain special devices is necessarily a long term operation, while the other may be short. The period in the latter case represents the length of the stay of the goods in the

[25] While the distinction is in some respects rather tenuous, and on that account at times has been rejected, the fact that the ordinary operations of the business enterprise are predicated upon the distinction and that a satisfactory accounting distinction has been developed, may be pointed to in justification of its employment in the present connection.

[26] The capitalization theory may be dismissed thus briefly, as it possesses no significance for the problem immediately at hand. Our concern here is rather with looking backward than with looking forward—at the past and its events, rather than at the future.

[27] At any one moment, part of the circulating capital equipment of the individual enterprise may be in industrial, part in pecuniary form, as, for example, in the case of a tanner, where part may be represented by hides and part by "money" to be gradually expended for wages and for tanning materials employed in making up the hides.

[28] This is merely another way of expressing the conventional conception of the self-liquidating character of the commercial transaction. This distinction itself is a commonplace in economic literature. Cf., e. g., Knies, op. cit., pp. 301-2, and Walras, d'Économie Politique Appliqué, Lausanne et Paris, 1898,Études pp. 313-316.

particular stage of the economic process. Thus we get the conventional conception of the production period, though it is obvious that the period varies from business to business. Rather may the several periods be conceived of as ranged in a frequency distribution, clustering about a mode or average type, in the United States perhaps about sixty to ninety days, and with the great majority of the cases falling below, say, six months.

The capital supplied by banking, though all in the form of liquid purchasing power (free or floating capital, to use Marshall's term), may thus be of two kinds. There is not, however, exact parallelism between the cleavage in the banking sphere and the cleavage in the capital sphere. While it is generally stated that the long term capital supplied is to be invested in certain fixed forms, such as buildings and machinery, part of this long term capital may be employed by the recipient enterprise as circulating capital. It is with the supply of the circulating capital alone that commercial banking concerns itself, while investment banking involves the supply of both forms. In brief, the pecuniary capital supplied by commercial banking is limited to use industrially as circulating capital, while the pecuniary capital supplied by investment banking is available for use industrially as either fixed or circulating capital. As every business enterprise requires both fixed and circulating capital, the real distinction from the point of view of banking is the supply in the case of commercial banking of temporary advances whose manifestations are destined to be shortly transferred to others, and the advances thereby repaid, and in the case of investment banking of the whole or part of the permanent capital equipment of the enterprise.

We see, then, that there is an institution of banking standing in a definite relation to the economic process. While investment banking provides more particularly the setting

in which the action takes place, commercial banking is concerned entirely with the action itself. It plays its rôle directly in the evolution of the economic good from raw material to finished product. It aids directly in the movement of goods in the economic process. This it accomplishes by bridging the gap in time which has arisen between the sale of a good and the payment of the purchase price by the purchaser. How it accomplishes this task will be considered in the chapters to follow. While exchange has been its accredited sphere, we see that this holds true only if the term "exchange" be broadened to include any transfer of goods; in the economic process as a whole, it mediates as well in the sphere of production as in the sphere of exchange, nor is its position in the sphere of production one particle less vital.[29] Furthermore, it touches the individual enterprise, no matter what its nature, both at the commencement and close of its activity. Commercial banking loans to it when it purchases its raw materials, and enables it to secure payment at once when it sells the finished product.

5. In addition to the destination of the capital supplied by the institution of banking, the sources from whence the same is derived must also be considered. To do this, it will be desirable to approach the institution of banking in a somewhat different manner. Consider a pool of commercial financing and a pool of investment financing. The pool of commercial financing concerns itself with the social circulating capital, the pool of investment financing with the total capital equipment of society, both fixed and circulating. In the pool of commercial financing, commercial banking plays

[29]We by no means can agree with Anderson's narrow conception of commercial banking as seen in his definition of commercial paper. Cf. The Value of Money, New York, 1917, pp. 498 ff., also Moulton's criticism of Anderson, Commercial Banking and Capital Formation, II, Journal of Political Economy, Vol. XXVI, 1918, pp. 641-3.

a far larger rôle than does investment banking in the pool of investment financing. Nor is the pooling which is effected of exactly the same character. In the former individual business enterprises are the units between which cooperation in the main is effected, temporary surpluses of capital obtained from some being applied to temporary deficits of others; in the pool of investment financing, the lending units are the individual investors themselves, capital gathered from them being furnished to business enterprises.[30] In the first case, mediation is effected for the business community, which is at once both source of supply and recipient of capital;[31] in the second case, mediation is

[30] A contrast which is similar in certain respects is drawn by Scott between the functions of commercial banks and investment banks. Cf. Investment vs. Commercial Banking, Proceedings of the Second Annual Convention of the Investment Bankers Association of America, 1913, pp. 76 ff. Reprinted in part in Moulton, (editor), Principles of Money and Banking, Chicago, 1916, Part II, pp. 4-6.

[31] The problem of how far banking, or any part of it, effects such cooperation, or merely effects the transfer of capital from a lending to a borrowing class, has been indirectly touched upon by various writers. Thus Coquelin, Le Credit et les Banques, 2e Edition, Paris, 1859, pp. 109-127, regards credit as a means of effecting such cooperation between the mercantile community, through extension of credit by the enterprise in each stage to the enterprise in the succeeding stage in the economic process, but regards banks merely as intermediaries between entrepreneurs and capitalists. The above doctrine as to credit, however, leads him to approach in certain particulars the views mentioned in Chapter III, Section 6, and Walras, op. cit., pp. 316-318, expresses strong dissent, holding that "credit is always a placement (*location*) of capital with an entrepreneur by a capitalist." The conception of commercial banking given in the text corresponds in broad outline to the first category of Courcelle-Seneuil's threefold classification of banks. Cf. Les Opérations de Banque. Traité Théoretique et Pratique. Huitième Édition, revue et mise à jour par André Liesse. Paris, 1899, pp. 169-176.

effected between one class in the community and another distinct class from which the former receives capital. Corresponding to the difference in purpose is a difference in the technique by which the pooling is effected. The individual investor directly holding the securities of business enterprises—directly participating in them rather than merely lending to them—bulks larger in the pool of investment financing than does his counterpart, the enterprise which sells on time, or which purchases and holds commercial paper with its surplus funds, in the pool of commercial financing. Otherwise phrased, representation by the institution of commercial banking of lending business enterprises plays a larger rôle in the pool of commercial financing than does representation by the institution of investment banking of individual "investors" in the pool of investment financing. Hence, the organization of the security market is of great importance in investment financing, whereas in commercial financing the discount market is rather regarded as a problem of the internal organization of the banking system.[32]

[32] For a more detailed discussion of the entire question cf. Ch. VI, Section I.

CHAPTER III

COMMERCIAL BANKING

1. The institution of commercial banking bridges the gap in time which exists in modern economic society between the sale of a good and the payment of the purchase price.[1] The buyer[2] is relieved from the necessity of immediate payment, while the seller has the funds at once placed at his disposal for use when he may so desire. The banking system in effect puts these funds out in the form of goods, i. e., the capital it supplies is invested temporarily in the goods. In other words, the buyer is supplied with part of his circulating capital. The capital of the seller of the goods is released through the permission granted him to draw claims upon the banking system.

But where does the banking system secure these funds which it places at the seller's disposal? It is commonly held that it calls into being an amount of purchasing power on the basis of its cash holdings. This explanation of the fundamental process involved is, however, erroneous. The

[1] In this chapter, unless specifically stated to the contrary, the term "banking" is employed in the sense of commercial banking. As will be readily apparent, the analysis has been made with the deposit system principally in mind, although similar considerations apply in large part in the case of the note system also.

[2] For the sake of ease of expression, the terms "buyer," "seller" and "borrower" are employed in the discussion which follows. It should be noted that the same refer primarily to business enterprises rather than to individuals, although we have yielded to grammatical usage and have not employed the neuter, which strictly should be done.

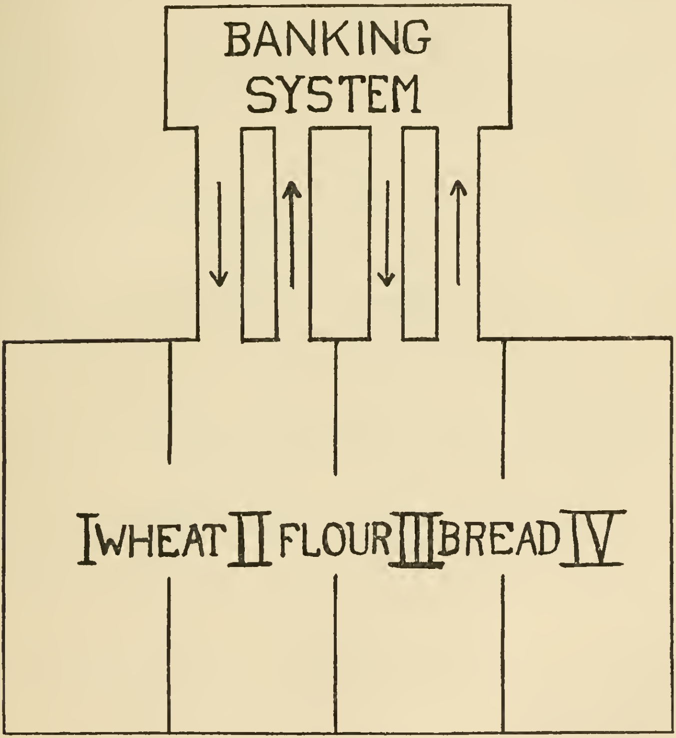
banking system supplies actual capital, the result of abstention from the consumption of values previously created. It may represent, for example, the fruits of past labor, or merely the result from the sale of a commodity at a price higher than the purchase price. The immediate source of the capital is best seen as follows. In society as a whole, there is at any moment a certain amount of goods to be marketed. Conceive of the funds used in this process, i. e., to bridge the gap between sale and payment of the purchase price, as a vast pool.[3] Into this pool are continually flowing streams of capital in the form of loans to buyers. These streams emanate from a reservoir which represents the banking system. But it is the source of replenishment of the reservoir which particularly interests us. Out of the pool and into the reservoir are continually flowing streams of capital—the repayment of loans by purchasers of goods as the goods are again sold and thus passed on one stage further in the productive process. As the goods upon which the loans were based are sold, the loans are repaid, and the capital, other things being equal, again raises the level in the reservoir.[4] An essential point which will be considered at greater length below is that, whereas in the supply of long-term capital ultimate borrowers and lenders are distinct, in the supply of short-term capital the ultimate borrowers and lenders are in the aggregate practically one and the same body. In a word, they are the entire mercantile community (in the broad sense of the term).

The conception may perhaps be clarified by a consideration of the accompanying diagrammatic representation. In simplest form we have merely two elements—the pool and

[3] In the present discussion we abstract from the direct sale on time, in which the seller actually supplies the required funds, also from direct holding of commercial paper by business enterprises.

[4] But cf. Section 4 of the present chapter.

the reservoir, and a two-fold connection between them. The banking system directs the outflow through the one connection, and receives the inflow through the other. The pool may profitably be further analyzed. Taking a cross-section of society at any one moment of time, the pro-



ductive process is seen as a succession of stages. Let us assume three represented respectively by the producer of raw material, such as wheat, the fashioner there into a production good, in this case flour, and the fashioner of the latter into a consumption good, bread. We have as repre-

sentatives of the successive hierarchy farmer, miller and baker. To attain completeness, we may add a fourth stage typified by the consumer. The goods produced then circulate between the stages, the raw material passing successively through the intermediate stages, and acquiring therein in this case a change of form until it finally reaches the ultimate consumer.[5] But there is also a change to be noted in the connection between banking system and industry. The single outlet from, as well as the single inlet to, the former resolves itself into several; in short, we have a pair for each of the intermediate stages in the process.[6] The inflow from the banking reservoir through the system of inflow pipes, as we may for the sake of convenience designate them, is intermittent or regular according as the requirements of the pool are small or great. The banking system in effect controls the valves regulating the inflow, its action in regard thereto automatically regulating the stream through the corresponding system of inflow pipes.[7]

[5] The figure also covers the case of commodities such as machinery which in their finished form are not direct consumption goods. The final stage here represents the enterprise for whom they function. Again, the case of durable consumption goods controlled by one individual, which yield a flow of service to others as the possessor wills, presents no difficulty, likewise the inclusion of stages in which merely time and place utilities are created. The figure is comprehensive enough to include them all.

[6] Later in the chapter, as well as in Ch. V, we shall consider whether it is necessary to add a pair also for both initial and final stages.

[7] Were we so minded, we could employ in this connection the mechanical analogy so elaborately worked out by Irving Fisher in his Mathematical Investigations in the Theory of Value and Prices, Transactions, Connecticut Academy of Arts and Sciences, Vol. IX, 1894, pp. 1-124. The figure as we have thus crudely given it would represent the top view of a series of cisterns with movable side walls and bottoms.

2. The fund of capital employed in the process is, however, not an independent variable, but rather a dependent one. While outflow from the reservoir mathematically speaking is a function of inflow, the fund is itself a function of other variables. The banking system, while it holds the fund, does not in point of fact have the title [8] thereto vested in it; it is merely a trustee, its service being confined to the administration of the fund. It is merely an intermediary in the supply of capital. The pool with its ceaseless inflow and outflow itself varies in size at different periods. It provides merely the upper level of the analysis. There is a lower level as well. The source of available accumulations on the lower level is four-fold; in addition to the deposits of the industrial community, there are the deposits of individuals, both temporary surpluses and the permanent accumulations of capitalists, and the capital stock and surplus of the banks themselves. The amount of accumulations on the lower level determines the amount of the funds which may be employed on the upper level. Using the analogy employed by J. B. Clark in another connection, we may compare the first to the waterfall, the second to the particles of water continually passing through it. But the analogy is again inexact. On both levels there is a ceaseless ebb and flow. Into the pool of the upper level flow the sums which are loaned, while out of it and into the reservoir, other things being equal, flow the sums which represent the repayments of loans previously made; into the fund on the lower level, which is to be set against the fund on the upper level, flow the current funds of society—in the main, the pecuniary representations of the contributions of the business enterprise—while out of it flow these funds as the claims on society which they represent realize them-

[8] Actually as distinguished from legally. This will be readily seen from a consideration of bank statements.

selves in definite form, such as the purchase of raw materials, or the increment in the value of a commodity due to the application of labor. Though the fund on the upper level is limited by the fund on the lower level, the several currents in each are not comparable except in the totality of their effects upon each level. Thus loan account and deposit account run in parallel columns.

In connection with the deposit account, the current funds of society, the banking system acts as the bookkeeper for society.[9] As it is directed, it transfers claims among the constituent business enterprises, crediting one enterprise and debiting another. It credits one enterprise for a contribution made to the social product, cancels its credit as it fixes the claim in a definite good or service, and debits another for goods or services procured in excess of past contributions which it has not fixed in definite form, its debits being offset as it makes its contributions. In other words, there is occurring a species of social clearing of current debits and credits of the several constituent business enterprises. In connection with this process—in the administration of these current funds of society—the commercial banking system is performing its other outstanding function. In addition to its action as intermediary in the supply of capital, in gathering and administering this capital commercial banking is functioning in a peculiar manner. The process which it employs is at once more profound and more remarkable than in the case of investment banking except the form of investment banking in which the commercial banking principle is employed. It acts as the clear-

[9] It will be observed that in the discussion in the text, as largely also in the first two chapters, abstraction has been made from the rôle which may be played by the individual, in view of its subsidiary character, in order to bring out sharply the more fundamental aspects. Compare Ch. II, Section 5; Ch. V, Section 3 and Ch. VI, Section 1.

ing agent for society. Differently phrased, there is here coalescence of capital supply and currency system.

3. We see then that commercial banking may be considered as the center of the modern commercial credit system, and in a two-fold sense. In its loan operations it extends credit, in its deposit operations it is the recipient of credit. With the development of commercial banking and the performance by it of its special function to a greater and greater degree, there is a tendency to have it concentrate credit granting in its hands, either through "checking" the credit extended in first instance by the individual enterprise or by itself measuring the buyer's credit without prior judgment by the seller. The important consequences resulting herefrom will be indicated later.[10] On the other hand, in its action as bookkeeper for society with respect to society's current funds, commercial banking is the recipient of credit. While banking credit is basically the same as other credit, and the early charters stress the privilege which was conferred of borrowing from the public by means of its bills or notes, in the historical evolution which has taken place, banking as recipient of credit has become sharply differentiated from other recipients of credit. The significant thing is not the fact that it is recipient of credit, but the peculiar relation in which it stands to society by virtue of this fact.[11] It may be noted, too, that in the deposit system credit on open book account, ordinarily considered a low form of credit, prevails, although the fact should not be overlooked that in this case the borrower himself keeps the record.

[10] Cf. Ch. VII, Section 1. It will be seen there that the statement in the text applies to investment banking also.

[11] For an analysis of points of similarity and difference, compare Moulton, Commercial Banking and Capital Formation, I, Journal of Political Economy, Vol. XXVI, 1918, pp. 504-5.

It is interesting to observe the similarity which the action of commercial banking as bookkeeper, in crediting an enterprise when it has made a contribution to the social product through the transfer of a good or the rendering of a service, and canceling this credit as the claim is fixed in definite form through the purchase of another good or the receipt of a service, bears to certain features of various socialistic currency and banking schemes which have been proposed. Proudhon's exchange bank project may be mentioned as a case in point, as well as the several more or less related types which have been suggested, in particular Solvay's plan of "social accounting."[12] The banking system in the present order of course does not directly receive from and credit the worker for the contribution which he makes, as the schemes of Owen, Mazel and others require; in society as at present organized, the extent of his contribution is measured in first instance by the entrepreneur, while the test of contribution to the social product lies solely in the willingness of another to receive the good or service. The banking system is essentially purely an intermediary in the process, arranging the debit and credit account as directed by the factors which control the situation. Abstracting from their other, and in some respects more important phases, when regarded from this one point of view, the plans are all seen to embody proposals for the improvement of the technical methods by which the banking system performs its bookkeeping function.[13] In performing this func-

[12] For a convenient discussion of these doctrines within small compass, cf. Gide and Rist, A History of Economic Doctrines, etc. Translation by R. Richards, Boston [1915], pp. 307-20.

[13] The argument that this function is performed no less by every currency system may be dismissed with a reference to the fact that the central problem in the plans noted concerns the issue of the same in exchange for values created. In the case

tion, it plays what is an integral part in all the various plans just mentioned.

It is a far cry from the exposition given of this process of credit and debit for contributions made and fixed, to the following statement of Hobson:[14] "The perfection of this process would be a business world in which every piece of wealth, land, building, crops, stock, machinery, materials and goods in various stages of production, carried with it a credit-note representing its present value, which could be used when it was wanted." The absurdity of the statement is patent. It is forgotten that currency acts purely in an intermediary capacity, to enable the transfer of goods or services, as we have indicated above.[15] It is required only when contributions are made without equivalent return being received. As soon as counter flow of goods or services occurs, the need for currency passes. In short, as will be indicated below,[16] a process of actual offset and cancellation of claims takes place. The amount of representatives then should be confined to the amount of goods actually passing in exchange in the economic process. In

of the employment of the printing press by a State to raise funds for its needs, while the State when it gives the currency so created to enterprises in return for the transfer of goods to itself technically credits them for contributions made, in point of fact it by no means considers the measurement of the true value on the basis of the existing price level of the contribution so made. As will be apparent in the following chapter, the banking system on the other hand is vitally concerned with such measurement through its creation of deposit credits in the loan operation.

[14]Gold, Prices and Wages, London, [1913], p. 78.

[15] It is obvious also that an unrealized claim for a personal service rendered, as, e.g., by a theatrical company, is just as valid as one for the labor of carpenters, yet the material form of the first is gone forever.

[16]Cf. Section 5.

a static society this will be readily apparent, and the fact that under actual dynamic conditions there is an ever-moving margin of claims which are unrealized, should not be permitted to obscure the fundamental features. It may be remarked that to Hobson, banking is essentially a means of coining current wealth into purchasing power,[17] and the above sketch gives the doctrinal genealogy of this phase of the pawnshop conception of banking.

4. The current funds above referred to represent in the main the circulating capital of society. Not only do the various business enterprises practically provide the borrowers, but the major part of the existing volume of unrealized claims is held by them. Through the institution of commercial banking the individual business enterprise contributes its surplus and obtains its deficit. This means in last resort merely that, on the one hand, the realizing of previously unrealized claims is foregone temporarily by certain business enterprises, while others are enabled to realize the claims temporarily, passing on at the close of their production period the goods in which their claims had been realized, and thus liquidating the loan obtained. Thus the commercial banking system combines and coordinates the sporadic potential lending or sporadic waiting [18] of business enterprises. By virtue of this pooling, the commercial banking system is enabled to direct the capital to places where it is required. Society thus is enabled to function with the average amount of capital required, instead of being under the necessity of having the maximum amount required by all of the individual firms, as would be the case

[17] The view is also held by Fisher, Elementary Principles of Economics, New York, 1911, p. 161, who states that "to put it crudely, banking is a device for coining into dollars land, stoves, and other wealth not otherwise generally exchangeable."

[18] The phrase is adapted from Brown, Principles of Commerce, New York, 1917, p. 32.

were each firm to hold separately the capital it employed. Through the pooling, we have social control and distribution of the social circulating capital.

We have confined our attention thus far almost entirely to the principal fund. Were this the sole reservoir, ultimate borrowers and lenders would, as we have seen, be in the aggregate one and the same body of persons, and it is basically the function of commercial banking to effect cooperation of this character between business enterprises. Theoretically it would be possible in a static society for the banking system to function merely with this one fund. In actual contemporary society, however, the case is not so simple. We have three additional sources whence funds are derived. These are deposits of individuals, both temporary surpluses and permanent accumulations of capitalists, and the capital and surplus of the banking system itself, which latter in point of actual fact exists primarily as a guaranty fund.[19] The funds employed in the process, as we have seen, all function through the banking mechanism, which, in addition to the the fund it directly contributes, determines the course of the application of the funds contributed by the other sources. The amount contributed by business enterprises and part of that contributed by individuals is due chiefly to a difference in time between the receipt of funds and the necessity for paying them out. Due largely to the peculiar function of this fund, the commercial banking system meets with no direct competition for its use. But the case is different with the supply originating

[19] The last two sources, in the use of which commercial banking functions as a means whereby capital is transferred from one class to another, are merely subsidiary. Moreover, as offset in some measure at least to the temporary surpluses of individuals are their temporary deficits, which fact should not be overlooked in the analysis of the upper level. Cf. Ch. V, Section 3.

from the third source. With respect to his current funds, the entire range of economic activity beckons to the capitalist. His choice is governed by considerations of ultimate safety, immediate realizability, and yield. The needs of commerce are reflected by the rate of interest, and through this means the banking system may direct the flow into the pool of commercial financing when such funds are required in this sphere, and retain them for the period required.

It will be apparent that in addition to the circulating capital whose application is effected through the institution of commercial banking, there is a considerable amount of such capital which is directly loaned by one enterprise to another through the sale of goods on time, or which is represented by direct holding of commercial paper by business enterprises. Strictly, then, the area of the pool of commercial financing should be broadened to include also the capital so applied. In the supply of capital in this broadened pool of commercial financing, however, commercial banking is by far a more prominent factor than is the individual enterprise, and it is through banking that cooperation in the application of the social circulating capital in fact is obtained. Moreover, the commercal banking system is the most prominent factor in the discount market, whereas the investment banking system by no means occupies an equal position in the security market. Hence we may dismiss the pool of commercial financing with this brief notice. In contrast to the situation which prevails with respect to investment banking, for an understanding of the institution of commercial banking, detailed examination of the entire pool is not required.

5. We turn now to a consideration of the manner in which the transfer of capital analyzed above is effected. Otherwise phrased, we consider the relation between the

two levels of the analysis previously indicated—between "loan fund' and "deposit fund." Considering for illustration purposes a loan on straight single name paper, the loan involves merely in first instance crediting the borrower on the books. But as long as the deposit so created is not employed, i. e., transferred to another, it is of little importance. The borrower, however, will desire actively to employ the funds he has procured, and accordingly will for instance purchase goods therewith for use in his operations. In payment for the goods he tenders a check to the seller, to whom the credit on the books of the bank [20] is then transferred. But in accepting the deposit credit the seller in effect supplies the capital involved in the financing of the transaction through the foregoing of the conversion of the claim he secures for the good which he has contributed to the social product.[21] In other words, the seller places part of his circulating capital temporarily at the buyer's disposal. He contributes this capital for the financing process until he calls upon the bank, either withdrawing the deposit, or transferring it to another enterprise, in which latter case the enterprise to which it is transferred supplies the capital. Through the fact that deposit currency has a high rapidity of circulation, the fact that the holder of a deposit credit is in exactly the same position as the holder of a bank note is often lost sight of. Banking does not really effect any loan of capital until the borrower is able to introduce to it an enterprise willing to act as the real lender. Only when the enterprise really "makes" its deposit by accepting the latter in exchange for its goods, and thus

[20] Assuming for the sake of simplicity that both buyer and seller use the same banker. No additional theoretic principles would emerge in passing to more complex cases.

[21] In effect, then, banking releases the seller's capital to him only when he calls upon it.

swells the available fund of capital, is capital actually supplied to the borrower. With the transfer of the deposit credits to other enterprises, especially with the splitting up of the sum into various parts through the drawing of a number of checks against it, the exact identification of deposit credits with the loan connected therewith becomes impossible.[22] The outlines of the former are soon blurred and shortly completely obliterated. The particular deposit becomes merely one of the vast numbers which together make up the fund of capital which has been loaned by the institution of banking. While it is true that the constituent parts of the "loan fund" change, the constituent elements of the "deposit fund" change far more rapidly. There is a ceaseless flow into the "deposit fund," and a ceaseless outflow as the elements are converted from claims upon the social product as a whole into titles to particular parts thereof. The order in time between reception of deposits and making of loans as regards any one transaction is then seen to be inverted. The loan is made, and simultaneously the deposit secured. While this is true with respect to the individual transaction, when viewed in the large we perceive both loan fund and deposit fund. Both truly exist, though their constituent elements change. Our more detailed analysis has merely shown the more specific connection between particular loan and particular deposit at the commencement of the process.

Nor does the fact that loans are usually repaid in claims on the bank vitiate the above analysis. It is merely a demonstration of the check exercised by the lower upon the

[22] Deposits by business enterprises thus perform their function through supplying capital against existing loans. Rather is it true that deposits support loans, than, as Taylor, The Credit System, New York, 1913, p. 57, says, that deposits are sustained by continually substituted new promises.

upper level.[23] At the same time that repayment is made, a depositor chooses to convert his general claim into a specific title to goods, in this case the contribution of the borrower to the social product. The depositor-purchaser relinquishes his general claim upon society, which the borrower then turns over to the banking system to offset the loan which he had obtained from, or, more accurately phrased, through the latter. This claim the buyer had obtained in exchange for a contribution which he had made to the social product.[24] In return for the good which had flowed from him at that time, another good now flows to him. The claim serves as a medium of exchange whereby he parts with one good and obtains another; the claim is created in first instance merely to transfer the good. It is obvious that when the circle is completed, and counter flow has offset original flow, the claim created to represent his original contribution has performed its function. At the same time, the loan which, together with the deposit credit, enabled the original transfer of the good, likewise has performed its function. Cancellation of both then occurs in the manner indicated. An equal shrinkage occurs in both loan fund and deposit fund. In the absence of exact identification throughout the course of its life history of deposit credit and the loan which it originally represented, the repayment of the loan serves merely to effect the cancellation of an amount of deposit credits equivalent in value thereto. Thus the volume of deposit credits in existence varies with the amount of unrealized or unfixed claims upon society

[23] On the entire question of cancellation, cf. Taylor, op. cit., Ch. III.

[24] For the sake of simplicity, we abstract from the case in which a loan had been made to the purchasing enterprise. No additional theoretic principles emerge in passing to the more complex case.

which are held, and in satisfaction of which goods are still to be passed or services rendered by those who obtained the goods or received the services contributed by the first group.[25] This is in rudimentary form what is implied by the conventional conception of an elastic currency, fluctuating in volume in response to "the needs of trade."

It must not be forgotten that in the above analysis the borrower is typified almost entirely by the business enterprise, and that the good which is the object of exchange represents to the enterprise which purchases the same part of its industrially circulating capital.[26] The pecuniary claim granted to the enterprise borrowing upon its single name paper is converted into goods for passive use in its productive process, and the loan practically resolves itself into mediation at the outset between the buyer-borrower and the seller of the goods. Other enterprises by foregoing the use of the claims on society which they hold—in other words, part of their pecuniary circulating capital—enable it to obtain the industrially circulating capital it requires.[27] When

[25] We see, then, as Laughlin indicates, that claims on society are liquidated in last analysis by goods alone. Principles of Money, New York, 1903, pp. 77-78. We include also services. These in general however realize themselves in the additional values of goods, and offer a distinct category only in the case of consumptive services, such as those rendered in connection with the theatre, which are negligible for our present purpose.

[26] To employ Wagner's terms, although we do not express exact agreement with the precise content which he assigns to them, we must not be misled by the previous discussion of the cancellation process to concentrate our attention upon *Konsumentengeld*, but rather remember that it is *Produzentengeld* to which our attention must be directed. Cf. Theoretische Sozialökonomik, Zweite Abteilung, Zweiter Band, Leipzig, 1909, p. 158.

[27] The bookkeeping function is then primarily concerned with the debit and credit accounts of business enterprises.

the enterprise passes on the good to another and receives payment, the claim so obtained offsets the loan previously made, and both loan and deposit credit equal in value to that given to the enterprise which originally relinquished the good, are canceled. Commercial banking thus directs the abstinence required largely on the part of other enterprises. Considering society as a whole, by this means it effects a pooling of the circulating capital held by society. Viewing the real, as distinguished from the pecuniary level of the analysis, through its action it enables the passage of goods through the several stages in the economic process from original producer to ultimate consumer, standing thus in a direct relation to the process.

6. It will be opportune at this point to consider briefly the relation of the doctrines here advanced to those of Veblen[28] and Davenport[29] on the one hand, and MacLeod[30] on the other hand. The old controversy as to whether credit *per se* is capital may happily be accorded an honorable burial. MacLeod argues that it is, and Davenport modifies the position so as to include merely capital from the private acquisitive as distinguished from the social point of view. In any event, the old classical doctrine of Ricardo, which has done valiant service in the suppression of the gross heresy, will now generally be conceded.[31]

[28]Theory of Business Enterprise, New York, 1915, Ch. V. The Use of Loan Credit.

[29]Economics of Enterprise, New York, 1916, Ch. XVII. Money, Credit and Banking.

[30]Theory of Credit, 2d Ed., Vol. I, London, 1893, Chs. III and IV.

[31] McCulloch, Principles of Political Economy, Edinburgh and London, 1843, p. 124. Selection reprinted in Moulton (editor), Principles of Money and Banking, Chicago, 1916, Part II, pp. 26-28. Cf. the criticism of MacLeod in Knies, Der Credit, Erste Hälfte, Berlin, 1876, pp. 66-95; also v. Komorzynski, Die Nationalökonomische Lehre vom Credit, Innsbruck, 1903, pp. 355-384.

Credit does not increase the material equipment of society. This, however, is not the real point at issue between the view set forth in this work and the above writers. Davenport's conception of banking as interposing itself as buffer between buyer and seller is correct, but insufficient. Credit is merely the means of effecting a loan of capital. The banking system in effect secures control of a certain fund of capital, and this fund it loans to individuals. Credit is extended to borrowers, and, in so doing, capital is loaned. This capital represents, not a creation of new capital, but merely a transfer of control over certain capital already in existence. The peculiarity of the connection between capital in pecuniary and capital in industrial form must not be permitted to obscure the actual existence of such a connection.

There is in addition a further difference in the point of view from which the phenomenon in question is surveyed. Aside from his interest in the combination of commercial and investment operations in American banking practice in the past, Veblen is concerned primarily with the other half of the process of financing. The keenness of the competitive struggle in modern industrial society and the striving of enterprises for increased banking accommodation in the race for larger profits is uppermost in his mind. The central problem to him is this: Here are enterprises appealing for accommodation; how much are they to be loaned? The problem to him becomes a value problem; his interest lies

[32] We have here the doctrinal genealogy of another of the phases of the pawnshop conception of banking. Veblen's doctrine has its roots in part in the attempts made to combine permanent capital supply and currency—loans to enterprises for fixed capital purposes, loans on securities or actual holding of the same, providing the offset against demand deposits. Cf. Ch. VI.

rather in capitalization than in capital.[32] But the technical methods by which the loan is effected should not blind us to the fundamental elements. Neither whence nor whither may be neglected. We, on the other hand, have considered rather the source whence the funds are derived, instead of their destination. While it will be evident from the above exposition that there is a measure of justice in the position maintained by Veblen, it will be equally evident that the doctrine of loan credit without the further analysis which we have made is both misleading and unsound. We cannot say with the enthusiastic disciple, "The sky is the limit." The modern credit mechanism is wonderful enough in reality without attributing to it magical powers which it does not possess. Among its belongings there is no Alladin's lamp.

In brief, it is a mistake to consider the analysis made by Veblen as a "general purpose" analysis. As in statistical, so in economic analysis there must be an adaptation of means to ends, the methods employed varying according to the goal to be reached. This is specifically recognized by Veblen in the passage where he brushes aside what is basically the analysis given in the preceding paragraph as irrelevant to his problem. Yet for an understanding of the rôle played by the institution of banking in modern economic society this analysis is vital.

CHAPTER IV

SOME FURTHER ASPECTS OF COMMERCIAL BANKING

1. In connection with its loan operations, commercial banking[1] performs the so-called "guaranty function." This has been selected by certain writers as the central factor of the institution of banking. Among the foremost exponents of this view is Willis, who has expressed the conception as follows:[2]

> The "single dominant idea or function" . . . "is that" . . . "of guaranteeing the limited or individual credit of each individual by accepting it and substituting in lieu thereof the bank's own credit." . . . "The bank thus appears as an institution for the study of credit and for guaranteeing its judgment on that subject." . . . "In order to render possible the commercial transactions of the present day, what is needed by the ordinary trader . . . is the guarantee of some recognized and known institution that he can, upon due notice, convert the wealth he owns into money or its equivalent."

Moulton has criticized the above passages, holding that in the operation described "the bank does not in fact guarantee that X will pay his obligation to Y at maturity, nor does the bank agree to pay X's liability for him at the end of three months. The bank agrees to pay, and does pay, the

[1] In the present chapter, the term "banking" again refers, unless specifically otherwise mentioned, to commercial banking.

[2] American Banking, Chicago, 1916, pp. 3, 4, 6.

obligation at once." [3] The relation hereof to his view of the distinctive position occupied by banking credit as compared with other credit is readily apparent. This, however, is by no means the central point; rather does it concern the necessity which exists for an analysis of the exact meaning of the term "guaranty." Our interest lies in what is guaranteed, rather than in how the guaranty is effected. Willis attempts an explanation in the latter part of the quotation. His statement is unfortunate, containing as it does a definite statement of the pawnshop conception of banking. In essence, what occurs is that banking underwrites the productive operation of the business enterprise. This operation, as we shall see, the business enterprise may commence only after the loan is made, it may previously have started the same, or again, in its stage of the economic process the purely productive as contrasted with the marketing substage may have been passed. In certain of these cases, the nominal, though not the real borrower changes. In any event, however, the banking system agrees to bear the loss in case the operation be not carried to a successful conclusion; in other words, in case a misdirection of productive activity occurs. In so acting, it differs basically not a whit from any other lender, either in kind (in the case of a sale on time) or in purchasing power. Such lenders, however, merely lose permanently to the extent of the failure of the borrower to return the amount of the same, the control of the purchasing power which they had surrendered temporarily. In the case of banking, on the other hand, the purchasing power lent is represented by deposit accounts. In the event of failure to repay the loan, the decrease in the loan account which occurs when the loan is written off is not accompanied by a corresponding decrease in the de-

[3] Commercial Banking and Capital Formation, I, Journal of Political Economy, Vol. XXVI, 1918, p. 506.

posit account. The banking system is then under the necessity of canceling an equivalent amount of purchasing power, or, as we have previously phrased it, of claims on the social product. To do this, of course, will require a supply of such claims as a guaranty fund upon which to draw, hence the need of capital and surplus in banking. Viewed in another and broader light, the result is to effect an adjustment of the claims held by society to the value of the goods available to liquidate these claims. The banking system thus guarantees that at some specified future date, namely, when the loan falls due, no discrepancy between the claims and the goods in existence will have resulted from the operation which it has financed.

It is evident that banking looks to the borrower's future contribution to the social product, and that the loan is made in view of that contribution. To the borrower, then, the loan is often said to anticipate the future. The "bank affords by anticipation the present use of future funds." Men enjoy "a share of subsisting [commodities], which is proportionate to the claim [they] have upon future goods," to quote Taylor.[4] The view is a corollary of the promissory note system,[5] and regards the matter from the borrower's point of view. It is held that banking enables him to obtain the present value of his future contributions.[6] The state-

[4] Op. cit., pp. 23, 29. Thus banking appears to coin future wealth into present purchasing power. The explanation in the text gives the doctrinal genealogy of this particular phase of the pawnshop conception of banking.

[5] Cf. Taylor's frequent references to the note.

[6] It may appear to the reader that Taylor's position possesses a certain validity in the case of a loan made to a seller of goods either directly or on the basis of his receivables. For a discussion of such loans, cf. Section 2. It is of course technically true that the seller who has his capital released, insofar as he did not borrow from the banking system, but had directly foregone the use of part of his own circulating capital, is given the option

ment, however, is misleading. The borrower borrows in order to buy. Banking thus enables him to obtain the goods which he will pass through his stage in the economic process, and (or) to retain them for the period during which he is engaged in passing them thru the stage in question. The loan is used for this specific purpose. "Money" to the actual borrower by no means performs the "bearer of options" function, to employ Anderson's phrase,[7] or, as previously expressed by Wagner,[8] serves "as a means of representation of capital in disposable form for all purposes." The borrower by no means obtains funds which he may apply for purely consumptive purposes. Instead, it should be recognized that the loan merely enables him to become social trustee for a good which he will pass through his stage in the process. In essence, merely a loan of certain particular goods is effected.

Taylor's doctrine of anticipation of the future has as corollary his view that the deposits created in the loan operations represent future goods, and hence that "present goods are exchanged by means of future." [9] In view of the above analysis, the structure falls to the ground. The major part of "present" goods in whose exchange banking intervenes are in the intermediate and not in the final consump-

of applying his capital prior to the date when funds are actually due him. But the loan in point of actual fact is made to a buyer.

[7] Op. cit., pp. 424 ff.

[8] Theoretische Sozialökonomik, Zweite Abteilung, Zweiter Band, Leipzig, 1909, p. 122. The doctrine is also contained in Menger, in the article cited above.

[9] Op. cit., title page. As is well known, anticipation of the future had been ascribed by earlier writers to the institution of credit, rather than to the institution of banking. The doctrine in this form would appear to be a corollary of the familiar attempt to define credit in terms of an exchange in which the contribution by one of the parties is deferred. Cf. von Komorzynski, op. cit., pp. 384-403.

tion stage. These intermediate goods, it has been seen, change hands because it is believed by the banking system that the buyer-borrower will successfully pass them through his stage in the economic process. In short, present as contrasted with future goods refer merely to the same goods in two different stages of advancement. Taylor's statement then is more accurately phrased as follows: Intermediate goods are exchanged by reason of the confidence of the banking system in the ability of the buyer to successfully advance them in the economic process. It should also be remarked that the deposit credit, while it enables buyer-borrower in this limited sense to trade on the future, at the same time represents a seller's contribution. Moreover, the conditions surrounding the loan operation are such as to ensure that the seller makes a real contribution, or to verify the fact that he previously has made one. It may be urged that part of the deposit credits so created, however, are paid as wages and thus enable consumption goods to flow, in that the workers to whom the buyer-borrower transfers the same expend them for consumption goods, i. e., the means of their subsistence. The amount, however, will be but by far the smaller part of such loans. This raises the further problem of the extent of the pooling, which will be treated later.[10]

2. The manner in which banking mediates between buyer and seller varies according to the type of loan—that is, the form of the paper, and the manner in which this paper finds its way into the banking system. We consider first the loan for which a commodity is given as collateral.[11]

[10] Ch. V, Section 3.

[11] Cf. Moulton, Commercial Banking and Capital Formation, II, Journal of Political Economy, Vol. XXVI, 1918, pp. 649 ff. Moulton and the present writer disagree over the term "commercial banking." which, in the present writer's opinion, is concerned with the manner in which cooperation in the application

Such loans are of three types, although the exposition which follows applies equally to each: (1) the loan upon bill of lading collateral, in which case a transaction has occurred, (2) the loan upon warehouse receipts, which represent either the current supply of raw material for a manufacturing enterprise, or a staple commodity in the lower stages, such as grain, engaged in passing through the market from original producer to manufacturing consumer, and (3) the loan upon a finished product, either to manufacturer or distributor, the difference between the second and third types consisting in large part in the degree of advancement of the good in the economic process. Fundamentally, banking in the case of such loans performs its mediatory office some time after the underlying transaction has occurred. The average circulating capital owned by the business enterprise is insufficient to bridge both the production and the marketing sub-stages in its stage in the economic process, though it may be noted that the production sub-stage may not exist, as in the case of a purely mercantile enterprise where only time and place utilities are created. The loan may be made either at the commencement or close of the passage of the good through the stage. The relative length of time for which the enterprise itself carries the good, as compared with the length of the stay of the good in the stage, varies with the type of loan and the industry in question. In all cases, however, the enterprise requires the release of its capital in order to engage in new productive operations. In certain cases, such as the marketing of the great agricultural staples, because of the risk in grading, etc., it is essential that the business enterprise possesses sufficient

of the social circulating capital is effected, and by no means has as a corollary the recognition merely of paper specifically related on its face to a given transaction. It carries no logical implication as to the form of the paper. Cf. also Section 3.

capital to enable it to bridge the initial portion of the stage; in other parts of the economic process, the possession of such capital may be entirely optional. Viewed in another way, what occurs in the case of the collateral loan is that the capital of the individual firm, taken in conjunction with its production period, is insufficient for the volume of business done, and in absence of greater rapidity of turnover, additional capital must be borrowed. It will be observed that this statement parallels somewhat closely those made by certain writers who regard banking as a species of "friend in need." This, however, by no means implies entire agreement with the view that a major field for banking exists "where a market is absent or where purchases on credit have already been instituted in place of cash payment," and thus "the circulating capital which is embodied in the finished products of a single stage in the productive process does not always again become available rapidly enough to ensure an uninterrupted productive process."[12]

The collateral loan, although currently so conceived,[13] thus by no means represents a coining of present wealth into purchasing power. It assists in the passage of goods through the economic process just as truly as do other types of loan. In the case of a loan directly tied to a transaction, the seller is credited for his contribution, while the buyer obtains possession of the good which he is to pass through his stage in the economic process. In the case of the collateral loan,

[12] Wagner, Der Kredit und das Bankwesen, Schönberg, Handbuch der Politischen Oekonomie, Vierte Auflage, Erster Band, Tübingen, 1896, p. 432. Compare also the following statement of Bisschop, The Rise of the London Money Market, 1640-1826, London, 1910, p. 247: "A bank's assistance is generally required in the final stage of the period of production."

[13] The collateral loan thus provides another source in a study of the doctrinal genealogy of the pawnshop conception of banking.

an enterprise engaged in passing through its stage of the economic process a good which it had previously purchased with its own funds, wishes to engage in additional operations.[14] It thereupon applies to the banking system for a loan upon the good which it is engaged in passing, requesting the banking system to mediate between it and the enterprise which had previously sold it the goods, and thus release to it the capital which it had previously invested in the goods in question, instead of requesting the mediation of the banking system in the new transaction which it is about to undertake. Aside from advantages which may result to the individual enterprise from this procedure, it should be noted also that theoretically the collateral loan should be less hazardous, inasmuch as banking "checks" the credit when the good has already partially passed through the stage in the economic process. The objection at times raised to the collateral loan as contrasted with the loan made directly upon a sale is based upon hesitation to assist the enterprise which has one of its operations unfinished to undertake another. The question raised is however entirely one of the demonstrated ability of the enterprise to successfully pass the goods through its stage in the economic process, and the ability may be ascertained by reference to the statement and the "credit turnover" there shown, as well as to the character of the underlying collateral. Only in the absence of regular flow through the economic process of the goods upon which the loan is based, need deleterious effects occur. Two cases wherein this may occur should be noted; first, where loans are made to enable the holding of a good, such as cotton, beyond the customary marketing period, in order to prevent a sacrifice, in which event a confession of failure to successfully pass the good thru the stage is necessarily involved, and

[14] We abstract here from the first type of collateral loan.

second, in the case of loans upon fixed assets such as land.[15] In these cases, especially if widespread, there occurs the effect upon prices, due to the disproportion between the purchasing power created and the goods available in which to fix the same, which is commonly attributed to this type of loan.[16]

It will be apparent that sharp distinction must be made between real and nominal borrower. Banking in every case mediates between buyer and seller. The real borrower in every case is the buyer, who is engaged in passing the good thru his stage in the economic process. The underlying significance of banking, its relation to the economic process, and its operation, must not be obscured by the uneven distribution in relation to requirements of capital holdings between various enterprises. Each enterprise does not own capital sufficient for its average requirements. Thus we find that seller carries buyer in many cases, while in other cases the buyer may possess capital sufficient for his maximum needs, employing the surplus in another manner during slack periods. It is essential for a clear understanding of the fundamental aspects to consider the individual purchasing enterprises as either possessing the capital required for a given transaction, or else obtaining the same through the banking system, but not from the seller.[17]

[15] For a discussion of such loans, cf. Ch. VI.

[16] The best recent illustration is afforded by German war finance and the instrumentalities created in connection therewith, such as the *Darlehnskassen*. Abstracting from the question of the necessity of the device as a means of raising funds for Government, it is clearly perceived that there is a limit within which such loans may be made. Cf., e.g., Laughlin, Credit of the Nations, New York, 1918, passim.

[17] This will serve to answer the objection which may be raised to our treatment of the loan on bill of lading collateral, where

The collateral loan, however, is by no means the sole type in which the banking system performs its mediatory service some time after the underlying transaction has occurred. In practice the use of the commodity collateral loan, which is dependent in considerable measure upon the prevalent market organization, is confined largely to the lower stages in the economic process, before the smaller number of staple articles have become differentiated—a mass of the former spread out, fan-shape, into a multiplicity of smaller amounts of specialized products. In either earlier or later stages, the seller on time may have his capital released by a pledge of the receivables, in whatever form—notes, open book accounts or trade acceptances—representing the buyer's obligation, or else the seller may borrow directly on his own single name paper. In the first case—the loan on commodity collateral—the buyer, in the second case, the seller, has temporarily supplied the capital required. In the second case, then, there is not the hesitancy which occurs in the first case to release the capital involved in the operation, as the seller has made a definite contribution, and has only a secondary interest in the productive operation in which the buyer is engaged. At the same time, however, the apparent concentration of the interest of banking in making the loan upon the status of the seller, must not blind us to the fact that the ultimate factor in liquidating the loan operation is nevertheless the buyer, and the operation in which he engages.

3. In considering the case in which the seller borrows directly on his own single name paper, we pass from paper directly related to the individual transaction to paper which is referred to the general operations of the individual firm. For the purposes of the present discussion, representative

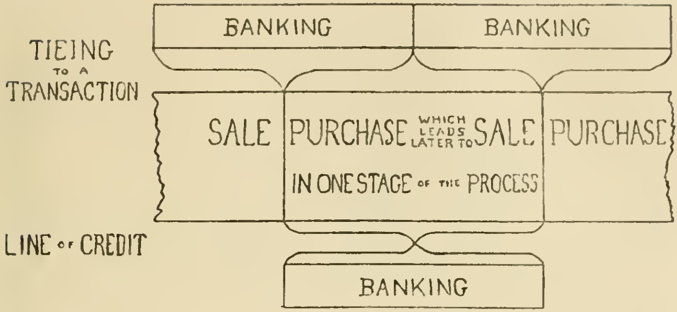
it may be objected that the loan is made to the seller on such collateral, whereas in point of fact the capital is supplied for a small portion of the buyer's stage.

respectively of the two systems may be considered the bill of exchange or trade acceptance and the promissory note. The rise of the latter system had been held to militate against the theory of commercial banking which is expounded in the present work. But the view that the recognition of the existence of a distinct institution of commercial banking of necessity implies a situation in which "the bank is merely to make temporary advances, extending each individual loan on its individual merits,"[18] is entirely fallacious. In order to demonstrate the justice of our position, let us consider at some length the essential features of the two systems. There is no intrinsic value attaching to either the promissory note or trade acceptance as such; for the present purpose both are to be considered merely as means to an end, namely the satisfactory performance by the institution of banking of its peculiar function. Through the measure of credit thus effected, assurance of proper direction (in the sense of antithesis of misdirection) of productive activity is to be obtained. The problem is a minimal one; the obtaining of the maximum assurance with the minimum effort. The two types of paper represent rival methods of attaining this goal. Briefly characterized, the contrast is between the technical methods of tieing the paper to a transaction or series of transactions[19] and the extension of "lines of credit."

The contrast is most clearly seen by reference to the accompanying diagram, which represents the method of financing under the two methods. Where the paper is tied to a transaction, banking of necessity must consider each

[18] Moulton, Commercial Banking and Capital Formation, III, Journal of Political Economy, Vol. XXVI, 1918, p. 718. Cf. also pp. 645-6.

[19] In the event that a single acceptance be given to cover a group of transactions, as has been suggested in connection with retail trade.



individual transaction. The line of credit system represents an attempt to apply the economies of large-scale operation. May we not group transactions, and pass upon an entire series at once, instead of upon each individually? More than this, however, may we not make use of the fact that in the economic process the individual enterprise acts both as buyer and seller? May we not then bring together a whole series of transactions, both purchases and sales, of the individual firm, and pass upon them *en bloc?* This is precisely what is done. By this means equivalence of an entire series of transactions and the sum total of paper created therefrom is obtained, rather than exact identity of each separate transaction or group of sellers' transactions in the series and constituent piece or pieces of paper. In either case, banking mediates between buyer and seller. Moreover, in case the loan is tied to a transaction, the banking system must look likewise to the buyer's stage in the process and the probable success of the productive operations in which he engages—in other words, to the sale which occurs at the close of his production period. It does not, however, have as a central problem the judgment of the totality of his operations and the consideration of the interplay of his purchases and sales upon his general standing, as is the case with the other method. It should be noted

that the employment of the line of credit device means that estimation must be made of the series of operations to be undertaken for a considerable period in advance. In this connection, the fact that the enterprise has been successful in similar operations, and under conditions similar to those at present prevailing, creates a presumption in its favor of ability to do likewise in the future. This is the kernel of contemporary practice relative to credit analysis. Various auxiliary safeguards of course are introduced, such as, e.g., the requirement that the individual enterprise "clean up" its indebtedness periodically.[20]

The promissory note finds its principal use in connection with the cash-discount system of commercial payments, while the stronghold of the trade acceptance lies rather in the system of net terms. It may be pointed out that the note system throws the burden of credit measurement directly on the institution of banking, while the acceptance system, on the other hand, may involve a prior measurement by the seller of the credit of the buyer in addition to the subsequent measurement by the institution of banking.[21] The employment of the banker's acceptance achieves the same results. The individual bank through its dispensation of the capital

[20] It should be remarked, however, that the chief virtue of this device lies rather in the proof which it affords of the character of the use to which the loan has been put.

[21] As is well known, unanimity of opinion by no means exists as to the relative merits of the two methods, or, as sometimes expressed, when viewing the matter from another angle, as to the proper "location of the financing." It is interesting to observe that the problem was touched upon by Knies, Der Credit, Zweite Hälfte, Berlin, 1879, pp. 264-5, who, because of the fact that purchaser and seller, located at different places, belong to different groups of recipients of credit, favors the granting of accommodation to the purchaser by the purchaser's bank, rather than the discounting of bills of exchange by the seller at the seller's bank, and perceives a tendency in the first direction.

it gathers has become expert in determining the worthiness of the applicants to it—in other words, in measuring credit. It has been found desirable to employ this knowledge in guaranteeing obligations of one enterprise to another without itself lending capital. The knowledge that its expert judgment has approved of the obligation, and that it stands ready to hold itself liable in case its judgment be found to be mistaken, will suffice to secure accommodation from another individual bank. The seller, assuming that the acceptance is granted in the case of an actual transaction, measures no credit, but in his place both the accepting bank and the discounting bank do so. The acceptance business in itself does not constitute banking, but its conduct by banks, as in the United States, affords rather another instance of development along the line of social least resistance.

CHAPTER V.

SOME FURTHER ASPECTS OF COMMERCIAL BANKING (CONT.)

1. We turn now to a consideration of the problem of the extent to which pooling of the social circulating capital is effected through the commercial banking system.[1] The outstanding feature is the lack of homogeneity in the economic process, and the necessity for separate consideration of several of the stages. For the purpose at hand, the most satisfactory division will be into the extractive, manufacturing, wholesale, retail and consumptive stages. Certain features of the process merely will be considered, and no attempt will be made to treat in detail each of the stages.

We turn first to the extractive stage, and in connection therewith consider agriculture. The stage will be regarded from two points of view: (1) suitability for commercial loan operations, and (2) flow of funds therefrom which are available for such operations. Let us consider the former first. Cooperative application of the social circulating capital depends upon the existence of fluctuations in the activity, and hence circulating capital requirements, of the individual business enterprise. The banking system does not loan in the case of every transaction undertaken by any one enterprise, but rather requires in general that the enterprise own at least an amount sufficient for its minimum requirements, the cooperation obtaining in the securing of the excess.[2]

[1]In the present chapter, the term "banking" again refers, unless specifically otherwise mentioned, to commercial banking.

More fruitful, however, will be a consideration of the individual loan operation. Three factors must be considered in analyzing the same in the various stages, in order to determine the suitability of the stage for cooperation in the application of the social circulating capital. They are (1) the length of the stay of the good in the stage in question, (2) the security of the productive process in the stage, and (3) the relative proportion which the value of the raw material which is transformed in the stage bears to the value of the finished product which emerges from the stage.[3]

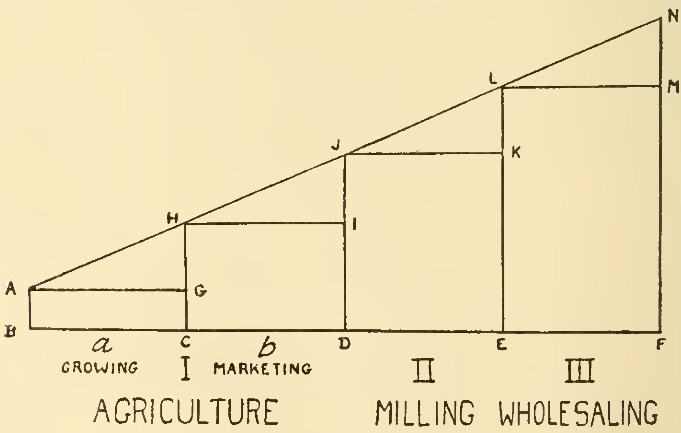
The outstanding features of the agricultural stage are an elongated production period and an elongated marketing period. We may now direct our attention to the first. Alleviation of the carrying burden of the individual enterprise in the case of an elongated period is rendered possible insofar as the carrying process may be further subdivided among several agencies, the first passing the good through a certain portion of the process, at which point the second takes it up and continues the passage, etc. Certain physical attributes, however, are required, the commodity possessing practically its final form utility, and practically being marketable at each step. Moreover, security in the process is required, which however is notoriously absent in the case

[2] In actual practice, however, ownership is unevenly distributed, and certain houses are carried by others.

[3] It is apparent that the third factor is no absolute guide to the amount loaned over a period of time, inasmuch as the fact that the individual enterprise itself holds part of its circulating capital requirements means that it borrows only when its needs exceed the amount of capital which it holds. Borrowing thus varies with the scale of operations.

We cannot agree with Hawtrey's distinction between the uses to which the loan is put by the manufacturer and by the merchant. The former in his view also receives as a regular element wages and expenses of working up the raw material, as well as the cost of the raw material itself. Op. cit., p. 376.

of agricultural products, where the risk element is not eliminated until the final harvest. Another type of risk is also present—superabundance of yield and consequent low price per unit of product. The risk factor is heightened by the absence of diversification; where substantially a one-crop system prevails, the individual borrower stands or falls therewith, likewise also the entire community, and thus the borrower in other stages. Last, in the case of ordinary loan operations, the value of the raw material is a considerable proportion of the value of the product which emerges from the stage. Particularly is this the case with the distributive stages, which are ordinarily conceived to be *par excellence* the field of commercial banking. The marked contrast existing between such cases and agricultural production is shown clearly by a consideration of the accompanying figure.[4]



[4] It will be observed that we abstract in the discussion entirely from fixed capital charges, as well as from profits. As the relative proportions of the several lines will differ with the individual case, no attempt has been made to obtain accuracy in drawing the figure, although certain standards exist.

In this schematic device, we trace grain through several stages in the economic process. As the essential consideration for our purposes is price and banking accommodation per unit of product, the volume of product may be neglected. Moreover, the analysis may proceed upon the monetary level. Hence in the figure the market value or price per unit of the raw material in the initial stage, namely seed, corresponds to A B, the price of the products at the close of the several stages, namely grain on farm immediately prior to shipment, grain at close of passage through primary market and into miller's hands, flour sold by miller to wholesale grocer, and flour sold by wholesale to retail grocer, to C H, D J, E L and F N respectively. It will be observed that the tangents of the angles H A G, J H I, L J K and N L M will vary with the increment in value of the good resulting from its stay in the stage, while the lengths of the stay of the good in each stage, as shown by B C, C D, D E and E F will correspond to the average so-called normal production period in each stage. Of the three elements of circulating capital expenditure, namely cost of raw material, wages expended in the transformation of the same, and cost of other articles used up in the process, the first provides the basic element in the individual loan operation.[5] Where an advance is made to cover part of the other elements also, the question of the probability of the borrower's making an actual contribution at least equal in value to these additional amounts arises, and hence the practice is frequently to consider the latter amounts as a margin to be supplied by the borrower. We have just remarked, however, the insecurity of the agricultural stage in the economic process.

In all economic activity involved in production for a

[5] It will be observed that in the discussion in previous chapters, we at times have tacitly considered the loan as limited to this one element.

market, an expenditure of effort anterior to the realization of the results therefrom is required. One cannot day by day pluck the fruit of the Tree of Life. Abstention now means harvest later; these products are then spread back evenly over the past production period.[6] But how is this to be accomplished? While in the higher stages of the economic process there is a division of the carrying burden between a series of enterprises, there can, however, from the nature of the case be no such structural division in the production of agricultural produce. In consequence, the flow of income in agriculture is highly seasonal, reaching its peak at harvest. Moreover, the geographic localization of the principal types of such production accentuates the problem, the entire community having a heavy flow of income at only one period of the year, the flow at other times being relatively light. Thus we hear of the annual "clean-up" of the South and the Northwest. The products required by the agriculturalist however are those of the higher stages, food in consumption form, clothing, etc. Against the requirement of a steady flow of such products is to be set his flow of income highly concentrated at certain seasons of the year. Within certain fairly well defined limits, dovetailing of uneven requirements and uneven contributions is not only possible, but in fact provides the basis for cooperative application of the social circulating capital such as is obtained through the banking system. This requires, however, some measure of synchronization of the production periods of the several types of economic activity, as well as a measure of diversification of such activity within a given territory. It is patent that in the case of agriculture

[6] A similar conception will be found in Fisher, The Rate of Interest, New York, 1907, pp. 241 ff., where business loans are conceived of as in anticipation of an uneven flow of income, thus rectifying the resultant distortion of the income-stream.

this in large measure does not exist. It is then necessary that the manufacturing sections carry the agricultural sections.[7] The problem becomes similar to that presented in the case of international trade, in particular between an economically advanced creditor nation and an agricultural debtor, where either fairly long credits may be extended, or a compensatory anticipatory flow of exchange created through the drawing of finance bills. An example which afforded the classic illustration of the use of the finance bill for the elementary texts in the past has been the trade between Great Britain and the United States, the bulk of American exports going forward in the autumn and winter, while heavy imports already occurred in the spring.

2. Part of the analysis just made in connection with agricultural loans may be applied in the consideration of the relation of commercial banking to an enterprise which has not confined its activities to one of the stages in the economic process, but which instead has taken unto itself several other contiguous stages as well. Its sphere of operations in its peculiar product may even be so inclusive as to roughly approximate that of the economic process as a whole. Nor is this a violent assumption, as the increasing integration of industry with its preaching of the economies of large-scale operation bears eloquent witness, as well as, within more modest compass, the recent tendency to decrease the number of successive steps in commodity distribution.[8] Let us consider as typical the case of an enterprise which has extended its sphere of operations to include the manu-

[7] Unless the agricultural community posseses capital sufficient to carry itself, which however in large part is not the case. As is well known, due to the economic organization of agriculture, the loan to the agriculturalist is in large part in kind, and the local merchant is the immediate lender.

[8] Shaw, op. cit., p. 73.

facture of the partly manufactured good which serves it as raw material, and which in addition has eliminated the wholesaler from the scheme employed in marketing its product, the enterprise now selling direct to the retailer. It thus embraces within its sphere of operations the activities previously performed by a series of separate enterprises. At the close of both of the stages in the manufacture of the product the appropriate potential form utility is created, likewise at the close of the wholesale stage the appropriate potential time and place utility. But, as we have seen, this alone does not suffice; a market must be provided. The enterprise has, however, in effect created a market for its successive products in each successive stage except the last. In so doing it has, moreover, eliminated extensive purchasing and selling operations, except at the commencement and close of the entire process. Attention will be directed to the factors which determine the relative amount of the loan in this case, as compared with the case in which the activities in which the enterprise engages are divided among a series of separate enterprises.

The figure given above may be employed, attention being confined to the stages marked Ib, II and III. To the enterprise in question, the basic element in the loan operation is represented by the line C H, the loan occurring for the duration of time C F. On the other hand, to a series of distinct enterprises, the basic elements in their loan operations would be represented by the amounts C H loaned for the time C D, J D for D E and L E for E F. Inasmuch as the sum of the latter may considerably exceed the former, there may result, through the requirement of increased ownership of capital, severe penalization of the new order, with its economies of large-scale operation. But certain difficulties arise in case there be extension of equivalent accomodation accorded the single enterprise. The central problem concerns the legitimacy of speaking of the "markets" which

the enterprise has created for itself at the close of each of the successive stages. Where the activities are performed by a series of separate enterprises, the contribution made is tested at the close of each successive stage, through the ability to transfer the good to another entirely separate enterprise. In the case in question, such a test of the contributions successively made is deferred until the close of the entire process, and hence the risk of maladjustment, concentrated in the last stage, is increased. Congestion in this last stage may react with disastrous consequences upon the other stages. Though, in making any loan, the banker must look ultimately to the last stage in the process, if not directly at least mediately as reflected in the smoothness of the flow of the product thru the stages more proximate to the stage in which he is called upon to loan, in the case in question this dependence of lower upon upper stages in production may be attended with far more drastic immediate results.[9] His analysis of course would be based in large part upon the past business history of the enterprise, and a comparison of present and anticipated future market conditions with those under which the requisite success therein indicated was achieved.

3. We consider now the final stage in the economic process, in which the good which passes through the process finds a final resting place. The entire theory of banking is predicated upon a final act of liquidation at the close of the

[9] Alleviation becomes possible insofar as the products of the lower stages are at the close of their several stays therein diverted to the general market instead of passing to the succeeding stage in the enterprise iteself. The enterprise in effect again divides itself into the several separate enterprises which it had supplanted. This involves a gradual slackening of the activities of the enterprise as a whole. Or again, the products of the lower stages may be passed on to the upper, but a variant of the finished product be introduced in the hope of greater marketability.

economic process. Liquidation in the last stage is reflected back, as it were, and renders possible liquidation in the preceding stages. This, of course, is readily apparent in view of the analysis contained in the last chapter but one. In considering the relation of banking to the stage in question, however, the stage must be further analyzed. It may be considered to assume a twofold aspect, according to the character of the good which enters it. The good may be either a consumption good, which gives us the conventional conception, or a capital good, in which event the good, previously representing circulating capital to the seller, at the close of its passage through the intermediate stages of the process, represents fixed capital to the final holder into whose hands it passes.

Let us consider first the case of a consumption good passing from retailer to wage earner, and analyze the consumptive stage from a purely business point of view.[10] As is well known, a gap in time customarily exists in such cases. Our theory of commercial banking, while emphasizing the function of bridging a gap in time between sale and payment of the purchase price, however, also implies the loan of such funds for a period not longer than sufficient to enable the buyer-borrower to pass the goods through its stage in the economic process. How are we to relate commercial banking to the case just noted? It will be most fruitful to approach the problem in a somewhat different manner. Between the actual application of labor and the ultimate sale of the commodity to which the labor is applied—the time when the contribution is finally and definitely made—a con-

[10] Substantial similarity would occur in considering recipients of other sources of income, such as from investments or from rent of property, in both of which a continuing contribution is made, while payment is received only at stated intervals.

siderable period of time may intervene.[11] In the present economic order, the entrepreneur becomes mediatory between the worker and society, and the worker makes his contribution when he sells his services to the entrepreneur. But the present economic order is predicated upon a grouping of transactions. The application of the principle of efficiency calls only for the periodical payment of wages, e.g., once a week. The gap in time for the worker thus in point of fact becomes twofold: (1) the period between payment by employer and actual sale of the product in which the labor was applied, and (2) the interval between payments by the employer. The second is bridged in point of actual fact in considerable measure by the retail merchant, who may obtain the capital required in such operations from the banking system. The technical banking analysis which is involved thus differs materially from that largely prevalent in the other stages. The combination of line of credit and cash discount system, as has been pointed out, involves a grouping of transactions in the buyer's stage. In the final stage in the economic process, however, the cleavage instead is along the line of a grouping of transactions of one seller with different buyers of similar articles, instead of the complete though diverse purchases of one buyer.[12]

The final stage has thus far in this section been regarded as one which is required to be carried by the other stages in the economic process. But certain contributions are also available from it. The source from which these funds are

[11] The case presents considerable analogy to that of agricultural production. Reference may also be made to note 6, p. 86.

[12] It will be observed that we abstract from the period during which the good remains in the retailer's stage in the economic process, which is properly involved in the consideration of mediation between wholesale and retail stages, and confine our attention to time elapsing between receipt of good and payment therefor by the consumer.

derived is on the one hand the regular recurring surpluses (alternating with deficits) of some individuals,[13] on the other hand the continual surpluses of others. The problem is, of course, complicated by the fact that the latter represent largely funds to be employed more or less shortly for investment purposes.

Points of similarity and difference may be noted between the above analysis of the passage of a final consumption good and the analysis required in the case of the passage of a capital good. Moulton has called attention to the similarity existing between the two corresponding types of loan.[14] That an investment operation is represented, is clearly seen in considering the fundamental nature of the two pools of financing, which will be discussed at greater length in the following chapter.[15] Leaving aside entirely the question of the source whence the funds to be loaned are derived, we may classify these loans according to the source whence the funds upon which the enterprise itself

[13] The surpluses arise in connection with certain of the transactions of each individual, as will be the case in considerable measure in other parts of the economic process, but are also offset in considerable measure by demands for funds from other individuals who operate their individual economy rather on the opposing principle of anticipation of income. The analysis of the transactions of the consumer from the retailer's point of view, namely, as (1) seasonal, such as clothing; (2) regularly recurring at intervals, such as men's furnishings, and (3) regularly recurring from day to day, such as groceries, does not aid us.

[14] Commercial Banking and Capital Formation, II, Journal of Political Economy, Vol. XXVI, 1918, pp. 648, 718.

[15] Cf. in particular Section 3. Inasmuch as certain business enterprises may possess the capital for some time previous to their employment of the same, while others may require the capital some time prior to their possession thereof, it may appear when superficially viewed that a species of pooling is rendered possible with respect to such capital.

relies are derived. We have then (1) new investments of saved capital obtained from without the enterprise, (2) use of income received by the enterprise for extensions and betterments, and (3) use of income received by the enterprise for repairs and replacements. It may appear that there is a flow of income from which the funds for repayment may be obtained. But the theory of commercial banking has as an essential feature a regular flow of goods through the stages in the economic process, and a counter flow of funds from which liquidation results, as the goods emerge from the stage. An automatic upper limit to the loan is afforded. In all three cases, however, this is conspicuously absent. In the third case no accommodation in point of fact should be required in the well administered enterprise. While it may be urged that banking merely enables an anticipation of the future control of funds, this however means, to employ an hypothetical case, that the enterprise possesses only the accumulations of nine months with which to purchase a tool which would require the accumulations of twelve months. Such a situation would be obviated were depreciation accurately calculated. In the second case the enterprise will apply the proceeds from a series of its operations to the purchase price of the new equipment. Two types may be distinguished, the basis of distinction, which is merely one of degree, being (1) the relation which the amount of capital so employed bears to the total capital equipment of the enterprise, and (2) the time for which the loan will be made, which in general will vary directly with the first factor. A large twilight zone however will exist, and only for illustrative purposes may we sharply distinguish between the two. In the case in which the relative amount of capital is small, and hence the time short, there may appear to be approximation from the point of view of time involved to a regular commercial loan. In both cases, however, liquida-

ting power will be obtained from the series of successive usufructs from the entire operations of the enterprise as these accumulate, not from the emergence from the borrower's stage of goods which the borrower has purchased with the funds obtained in order to pass the goods through the stage—in other words, from that part of sales representing profits, rather than from the total receipts from sales. Attention will be paid to this difference in source of liquidating power in the analysis made by the lender, and assurance obtained that the sum total of anticipated profits during the period of the loan, as shown by rate of turnover and profit per individual turnover, will suffice to repay the loan.

4. We turn back at this point to the marketing sub stage of the extractive stage in the economic process. Whereas in the cases previously considered there has been a horizontal flow of goods from stage to stage, we have here the apparent paradox that the very force, organized speculation, which is designed to further perfect the onward sweep of goods, appears itself when viewed superficially as a frictional element, abnormal, if we wish to employ the term, involving a vertical flow of goods, due to trading between enterprises in the same stage of the process.

The marketing process in the case of the great staples, to which we will confine our attention, is both elongated and possessed of certain special features. During the crop-moving season, which occupies from three to four months, the commodities become concentrated in the hands of the marketing agencies, which gradually pass them into consumption during the balance of the year. Greater "functional" specialization has been developed here among the structural agencies than in the upper stages of the economic process. Several subsidiary stages, as we may denote them, may be distinguished. The crops are gathered in the country and moved to the primary market, stored in the primary

market during their passage through it, and then are passed into the hands of users or of further intermediaries. In this process the individual lots of commodities lose their identity; a title to a particular lot becomes merely a claim to a specified amount of a particular grade. In the process, the second subsidiary stage is of particular interest to us, inasumch as the primary market in the cases of most importance is typified by the organized exchange, such as the Chicago Board of Trade or the New York Produce Exchange. Moreover, the organized exchange is conventionally conceived of as the home of commodity speculation.[16] This at once raises the problem of the relation of commercial banking to such speculation, and the manner in which this speculation is financed. The study is concerned essentially with the loan operation, rather than with the cooperation which may be obtained in the supply of such capital. The treatment of speculation will be relatively somewhat extended, in order to provide a basis also for certain of the discussions in the following chapter.

Speculation on the organized exchange is associated primarily with the system of futures. But the financing of futures calls for relatively little capital. Only margins, in the past usually ten per cent., are required by both parties to a transaction as evidence of good faith and pecuniary responsibility until actual delivery is made, when the entire amount becomes due. As a large proportion of future transactions are "rung out," in the language of the market, that

[16] We may bear in mind the conception of speculation of Lexis in Schönberg, Handbuch der Politischen Oekonomie, Vierte Auflage, Zweiter Band, Zweiter Halbband, Tübingen, 1898, p. 255: "The endeavor to appraise in advance the price relations of the near future, and the governing of present action by these conjectures." Waiving all claim to exactitude, we may characterize price difference trading as an essential feature of speculation.

is, the differences merely settled, actual deliveries are made chiefly to miller or actual distributor. But the volume of future trading depends indirectly upon the amount of actual commodity available, as represented by receipts of approved warehouses. Without a large basis of actual commodity engaged in passing through the process, extensive future trading, and thus an extensive speculative market, cannot exist. What a specie reserve is to a bank, the reserve of warehouse receipts is to the speculative exchange. The actual commodity in warehouse supports a mass of futures. The greater the amount of credit extended by the banking system, say to the terminal elevator company in the case of wheat, and the longer the period of time for which it is extended, that is, the slower the passage of the commodity through the sub-stage, the larger the volume of speculation which may be sustained. This relation, however, is limited by the fact noted above that there is a given stock of the commodity whose distribution is to be spread over the entire year; were the adjustment of demand, supply and price rendered perfect or nearly so by the exchange, banking would be impotent to influence in any way the volume of such future speculation.

5. But we must consider at the same time the service rendered by such speculation. That commodity speculation in the broad sense of the term has a definite rôle in the economic process no one can legitimately deny. The economic process is dynamic, not static; speculation plays an integral part in this dynamic process. The services rendered are two-fold. Speculation endeavors to bridge the gap created by the modern capitalistic system of production between producer and consumer.[17] Though demand and supply act to fix prices, the prices so fixed react on the consumptive propensities helping to determine demand, as well as the pro-

[17] Emery, Speculation on the Stock and Produce Exchanges of the United States, New York, 1896, p. 158.

ductive activities determining future supply. Speculation acts primarily through prices to render the competitive adjustment of demand and supply more perfect. The endeavor is primarily to attain an ever-moving series of static equilibria; the mean levels of the sea around which the waves forever play, to employ a familiar illustration. Operating basically within the stages, that is vertically, in place of horizontally in the economic process, speculation endeavors to render more even the onward sweep of goods and to adjust the rate of flow of goods through the process, as well as the rate of consumption. The existing supply is distributed in the most effective manner. Finally, it determines the rate of future production. It is in these connections that the so-called discounting of the future becomes of importance. If the present supply of goods be more than ample, and an abundant supply at a relatively definite time in the future be in sight, the price will be low, consumption and thus the flow through the stages will be hastened, and the way opened for the advent of the new supply. On the other hand, should present supply be deficient, and future supply appear likely to be deficient, the price will be high, consumption and thus the flow through the stages will be slackened, and the supply spread evenly over the period in question. These widespread ramifications of speculation apply primarily to commodities in the lower stages of the productive process. Such commodities are standardized, homogeneous in quality (so that the warrant system may be applied), and of uncertain and to a considerable extent uncontrollable production. These conditions, which the great staples fulfil to a marked degree, render organized exchanges possible. Uncertainty makes for the system of futures; in the case of specialized products the future volume of which appearing on the market is relatively controllable, a system of spot speculation is much more likely to occur. But the function of speculation

in this case is altered not a whit. The speculator, endeavoring from his own individual point of view to create time and place utilities, or to decrease excessive valuations, is still contributing to the same end.[18] In any case, speculation is a part of the scheme of securing maximum efficiency in the economic process. Or, viewed in another light, it becomes a moving factor in a minimal problem; the completest possible satisfaction of wants with the least possible expenditure of effort.[19] This service has been called "the directive force of speculation" which operates through prices.[20] In speculation traditionally is seen *par excellence* the doctrine of the Unseen Hand.

In the performance of this function speculation performs another function as well. Insurance and speculation both have the same principal object; the deliberate assumption of risk. The methods employed in the various forms of speculation, however, differ widely. In commodities which are the subject of organized speculation, there is a special class of risk takers. Just as the body of traders in becoming differentiated from the body of producers assumed the risks

[18] We are thus required to revise somewhat our exposition of the creation of the several species of potential utility which was given in the second chapter. We abstracted at that time from changes in the estimation placed upon goods. Speculation however emphasizes the fluctuating character of these estimations, differences both between times and between places existing. Instead of the utilities being by any means absolute, they are on the contrary extremely variable. The test of the utility of the good is in the endeavor to bring it in relation to human wants. Only when form utility is associated with the other two kinds of utility does it become actual. The actual utility is composite; only for theoretic purposes may we endeavor to isolate the component parts.

[19] The phrase is adapted from Ernest Mach's statement concerning science. Science of Mechanics, Chicago, 1907, p. 490.

[20] Emery, op. cit., p. 143.

of the market, so with the widening of the market—now become world-wide—and the increase in the risks attendant upon the larger *Konjunctur*, a special class of speculators, which has become differentiated from the traders, has assumed the larger risks the traders are no longer qualified to assume.[21] This in itself has the effect of reducing the risks.[22] A continuous market is provided. The extreme limits of price fluctuations are narrowed, though the fluctuations themselves are more frequent.[23] In unorganized speculation there may or may not be a special class of risk takers. Typical of the two cases may be considered the trader in real estate, and the wholesaler who purchases a commodity in excess of anticipated demand of retailers in order to dispose of it again to other wholesalers at an advance in price, which latter species of transaction is in fact quite common today.[24] While organized speculation means a deliberate avoidance of risk by the regular participants in the economic process, in the case of unorganized speculation there is often a deliberate assumption of risk by a special class of participants in the expectation of using the specialized knowledge and skill acquired in their regular activity.[25] Speculative business, which may be considered as the third class of speculation, is,

[21] Ibid, pp. 101-9.

[22] Fisher, The Rate of Interest, New York, 1907, p. 217.

[23] But this does not necessarily imply more stable prices, for conditions of demand and supply may differ at different periods Cf. Emery, op. cit., p. 125.

[24] Anderson, op. cit., pp. 253-4. With the scarcity of goods during the last few years it became a familiar phenomenon in the textile markets in particular.

[25] Exactly the reverse occurs in the case of the average man, who, while price fluctuations are an integral part of present economic society, is always endeavoring as far as possible to avoid them and conform his actions to the doctrine of a normal price.

in fact, in a sense inherent in all production for a market; certain risks are inherent in all business, and cannot be avoided. It becomes in fact primarily a question of what risks not specifically inherent in the business are assumed, and its outlines are exceedingly vague.

The virtue of the special class of risk takers has usually been conceived to be the fact that it makes hedging possible by the other participants in the economic process. With a future system, as we have seen, it renders hedging possible not only by those engaged in the stages preceding and succeeding that in which speculation occurs, but as well by those engaged in passing the commodity through the marketing stage in which it becomes the basis of speculation. Many of the futures then represent, not speculative, but hedging transactions. The classic example, which has found its way into the economic texts, is that of the miller, who operates with the two commodities which he employs for the purpose [26] so that, mathematically expressed, p_1 minus p_2 equals constant, p_1 and p_2 being the prices of the two commodities at any moment of time. In this case the prices of the commodities selected are directly related, hence the hedge is accomplished through a short sale. As has been pointed out, however, hedging is a much more universal phenomenon than is often believed.[27] It often involves the second form

[26] These two commodities may be a spot and a future of one commodity, or a raw material and the finished product thereof, as well as entirely different commodities. In the instance of the miller, as the difference in price between future wheat and spot wheat is fixed at the time of purchase, that is, is a constant, the requirement is that the difference in price between the flour and spot wheat (the future at time of delivery) should be equal to the constant. This in fact is true because the prices of spot and future wheat and flour all move in consonance.

[27] Brace, The Value of Organized Speculation, Boston and New York, 1913, pp. 155 ff. In actual practice the offset in either

of hedge, where the prices of the two commodities chosen are inversely related, a rise in the price of one equalizing a fall in the price of the other, so that, mathematically expressed, p_1 plus p_2 equals constant. Hence the hedger is long, in the language of the market place, on both commodities. In either case, the effect is to preserve to the hedger the trade profit on his chief commodity. No organized exchange is necessary in either case, and the virtue of organized speculation becomes rather the fact that hedging is rendered easier through the continuous market provided and the more perfect price adjustments secured. In fact, theoretically, no distinct speculative trading in the commodity which is used to hedge with is required.

6. In considering the banking support tendered speculation, differentiation must be made between it and the volume of speculative transactions. It is against the latter that the hue and cry is raised; it is gambling, of which the latter are conceived largely to exist, that is condemned. But a far better distinction for our purpose, inasmuch as the gambling spirit underlies all speculation, is that between legitimate and illegitimate speculation, between the speculation of the professional and the speculation of the amateur.[28] The amount of amateur speculation in commodities is, however, relatively slight; the stock market is the Mecca of the lamb. On the organized exchanges he nevertheless interferes seriously with the efficacy of the price fixing process. The only virtue of such speculators lies in the fact that they extend the limits of the market. The problem then narrows down to this: how large a market is required for the operation of the price fixing process? Considerable difference of opin-

case may at times only be exceedingly rough. A measure of compensation rather than exact equivalence is achieved in such cases.

[28] Ibid., Chapters V and VI.

ion exists as to this point, especially as to whether or not the professional speculators can operate efficiently in a market from which the amateur is excluded. If the narrowing of the market be too great, certain consequences will follow. If, for example, an attempt be made to greatly limit banking support of future transactions, and the amount of short sales be thus considerably decreased, the market may tend to become one-sided, and greater price fluctuation result.[29] The individual bank by lessening banking accommodation will be forced to still further limit banking accommodation, as larger margins will be required. The opportunity for hedging will be decreased, and hence the opportunity for the regular business man to safeguard himself. The problem is not of great practical moment, inasmuch as there has been a great decrease in outside participation during the last decade. Rather is it unorganized speculation and speculative business, the volume of which is shrouded in mystery, which present a serious problem. Spot speculation will in these cases in general prevail. Hence the market, even if speculation operate, will be one-sided. Price adjustment will be less effective than in a two-sided market, for buying occurs chiefly for a rise; the tendency is to level prices up, never down. Hence the value of speculation in these cases is considerably lessened. Direct opportunity for hedging, such as occurs in the lower stages of the economic process, is afforded much more rarely. The same question of the desirable volume of speculation is again raised. Again the ideal to be attained is the same: the number of transactions needed under the existing division of labor to efficiently move the commodities through the stages in the economic process.[30]

[29] This result will also be accentuated by the fact that the banking system will prevent holding of commodities over a period of relative surplus and low price, and thus will interfere with the evening of prices which would otherwise occur.

[30] Cf. Anderson, op. cit., p. 253.

Again the practical interpretation presents serious difficulties—not only the total amount, but also the distribution thereof between the several enterprises. Assuming this to be determiner for the transactions conceived to be legitimate, however, only the same problem presents itself as in the case of other loans to directly advance the goods in the process—the assurance in consequence of the loan of a future output within a definite time at least equal in value to the amount of the loan. As speculation implies risk assumption, a large margin of safety must be allowed. The banking system supplies funds to an amount equal to the basic underlying value; the speculator provides a margin to cover possible decrease in value.[31] While commodities in the wholesale stages have a ready market, and thus loans might be made to a higher percentage, there are countervailing considerations in the fact that they are often sensitive to price fluctuations, as well as the fact that the margin of profit is smaller. One further problem remains. Hedges of the second type require double operating capital. This device at best involves considerable special waste, inasmuch as, unless goods be available as hedges whose economic process dovetails with that of the commodity whose price fluctuations are to be hedged against, a considerable volume of goods may at any time be temporarily sidetracked in the economic process in order to serve as hedges. It would thus be required that virtually double banking accommodation, allowing for margins, be granted to an enterprise in order that it might safeguard itself against fluctuations in the price of its chief product.

7. We may proceed now to bring together certain of the leading points made above, in a consideration as a whole of the problem indicated at the opening of the chapter. What

[31] This applies as well to spot speculation upon the organized exchanges.

limits are fixed to the pooling of social circulating capital effected through the commercial banking system? We must distinguish at the outset between the commercial character of the operation for which a loan may be asked, and the possibility of making such loans upon a widespread scale. To illustrate: according to the general principles of commercial lending, loans could be made upon all mercantile transactions (using the term mercantile in a broad sense), and the individual enterprise thus be required to hold no circulating capital at all. The source from whence the capital in question was derived, however, would then be permanent savings owned by others than the enterprises in question.[32] Commercial banking, however, has a different basis. The underlying theory is built upon the existence of deficit of one enterprise simultaneously with surplus of another, and consequently the possibility of applying the one to the other. Given a certain amount of circulating capital in existence, commercial banking thus at any one moment of time endeavors and tends to effect the most efficient distribution of this capital.[33] This distribution, moreover, is continually changing from moment to moment.

For the individual enterprise, the above analysis would seem to call for the holding of its average capital requirements over a period of time. In point of actual fact, however, no such guaranty is stressed in the theory underlying the tests employed in credit "granting" at the present time. The requirement of a periodic "clean up" provides merely for the holding of minimum, not average, circulating capital requirements.[34] Nor does the theory of the production

[32] The degree of efficiency attained depends of course in large part upon questions of banking technique and organization.

[33] This involves the same point as made above of the necessity of considering the deposit as well as the loan aspect.

period as applied to such loans afford a better guide. Aside from the practical features—lack of absolute standardization of the period in the distributive stages, as well as seasonal variation in the length of the period for the same enterprise—the device merely provides an upper limit to the individual loan transaction, in that the buyer-borrower, at the close of the passage of the good through his stage, will be in a position to liquidate the loan made to him.

We turn now from the circulating capital requirements of the individual enterprise to the requirements of society as a whole. At any one moment, forces are at work to effect an adjustment between capital requirements and capital supply. But the volume of such capital requirements is continually changing. There is a seasonal concentration, and a cyclic change in the volume of trade and industry as well. In consequence, over a period of time we have a series of ever moving static equilibria, to effect which numerous forces are at work. The principal element of elasticity on the supply side arises from the new capital created, and the option existing of its direction into either the commercial or investment spheres. Changes on the demand side may react on the supply side as well. Take the case of advance in industrial or marketing technique. The length of the production period will be decreased, with a consequent effect upon loan operations, at the same time that the flow of income is increased. Moreover, increased output from the existing fixed capital equipment may well require a larger circulating capital

[34] This is the second element involved in this requirement; the basic element is that of affording evidence of liquidating power and thus showing absence of application of the capital to fixed purposes. Inasmuch as certain enterprises in point of actual fact own considerably in excess of their average requirements, the practical question in lending becomes rather one of fixing a "safety" minimum, which the "clean-up" provides.

equipment, until equilibrium is attained between the amount of capital devoted to the two uses. Thus not only is there continual attempt to attain equilibrium between circulating capital requirements and resources, but to preserve a balance between these and fixed capital requirements and resources as well.

CHAPTER VI.

INVESTMENT BANKING

1. We have seen that there is a pool of commercial financing. Through it effective utilization of the social circulating capital is rendered possible. The individual business enterprise contributes its surplus and obtains its deficit, the cooperative application of the capital being effected through the institution of commercial banking. But, as we have seen, there is an investment pool as well, in which the cooperative application of the capital contained therein is effected in part by the institution of investment banking. Considerable difference, however, exists between the two pools. Let us recall certain of the points of contrast previously indicated.[1] The pool of commercial financing concerns itself exclusively with the social circulating capital, while the pool of investment financing is not complementary, in that the sum of the two pools equals the total capital in existence, but in point of actual fact itself equals the latter; it includes both the fixed and circulating capital in existence. This difference in area goes hand in hand with a difference in the units between which cooperation is effected. In the case of commercial financing, we stop with the individual business enterprise; in the case of investment financing, we end with the individual himself. In the one case, the lenders and borrowers are in a broad sense one and the same class; in the other, the individual is the lending unit, whereas

[1] Cf. Chapter II, Section 5.

the business enterprise is the borrowing unit.[2] The underlying purposes of the two pools thus differ. The commercial pool represents cooperation by business enterprises in the employment of the circulating capital owned by these enterprises; the investment pool represents cooperation by individuals in rendering available for employment by business enterprises the capital owned by such individuals. In the investment pool, relative permanency is the keynote, both on the part of borrower and of lender. There is no such periodic liquidity of funds, nor is there such frequent periodic availability and inavailability of funds—alternating periods of surplus and deficit—on the part of the individual enterprise, as in the commercial pool. The flow of capital in the investment pool is more viscous. Slower change occurs in the alignment of recipients and lenders, as well as in the general character of the investments represented. Change in the investments occurs primarily in the direction of the application of new saved capital.

Investment banking is frequently popularly held to concern itself with the supply of fixed capital only, in contrast to commercial banking, which confines itself to the supply of circulating capital. In the above discussion, however, the basis of distinction has been the time for which the capital is supplied. From this point of view, rather than from that of use to which funds are put, was drawn the distinction between the two pools. The cross cleavage between the two criteria was remarked

[2] Though the business enterprise of course may be resolved into an association of individuals, and thus the individual in point of fact be the ultimate unit. The capital owned in varying proportions by individual members of the group is thus distributed in a different manner among the members of the group. Special organization of the recipients in the form of corporations, partnerships, etc., is frequent.

above.[3] The question arises, may we not recognize the existence of a pool involving merely the fixed capital of society, and thus complementary to the pool of commercial financing. In such a pool, the individual would necessarily be the lending unit. Theoretically only, however, can we conceive of a certain quantity of capital saved by the individual members of society, the composition changing with the passage of time, as an offset to the fixed capital equipment of society. Practically, we cannot dissociate the same from the circulating capital so supplied, and the concept is of little value. It may be remarked, however, that certain problems arise in considering direct loans for fixed capital purposes, which will be considered below.

Corresponding to the difference in the fundamental purpose of the two pools is a difference in the technique by which the pooling is effected. There is a greater diversity of factors in the investment pool, the structural differentiation is more pronounced, and there is a difference in the relative importance of the rôles played by the factors. In the commercial pool the structural elements are threefold: (1) the note broker, the discount corporation and the finance corporation, (2) the commercial bank, and (3) the individual enterprise which either sells on time, or which purchases and holds commercial paper with its surplus funds. The parallel elements in the investment pool are as follows: (1) the trader in securities, such as the bond house, and including also the corporation which resells securities with its own endorsement, or issues its own obligations based on these other securities, (2) the association of lenders, in the form either of savings bank, holders of time deposits or inactive accounts in a so-called "commercial" bank, insurance company conducted upon the

[3] Cf. Chapter II, Section 4.

actuarial principle of reserves as distinguished from the actuarial principle of distribution of loss, or cooperative bank,[4] and (3) the individual. We will concentrate our attention upon the second factors. In both investment and commercial spheres, banking concerns itself with the assembling of capital; in the commercial sphere, however, it concerns itself equally with the distribution thereof.[5] Owing to the character of the purposes to which such loans are applied, and the corresponding duration of the loan, a change in the total volume thereof is rendered possible. On

[4] A word concerning the cooperative bank may not be out of place. In consequence of the fact that ultimate borrowers and lenders are in the aggregate one and the same body, these organizations are concerned equally with the gathering and dispersion of capital. The process in essence is as follows: A group of individuals wish each to do a certain thing requiring a certain amount of capital. None of them has the required amount, nor will the individual surplus per period of time suffice. But by pooling this surplus, one individual of the group will be enabled to do the desired thing during each period. In consequence, all members contribute their surplus to a common fund, which at the end of the first period of time renders available the required amount for one member of the group, at the end of the second period for another, and so on until the members of the entire group have accomplished their purposes. In other words, through this pooling, we secure, for example, assuming that a building and loan association has been the organization in question, the creation of one house every year for fifteen years instead of fifteen houses at the end of fifteen years. The fact that in practice the needs of the several individuals may differ, and that an effort is made to attract outside funds, does not vitiate the basic principle. This endeavor means, however, that such organizations must issue their own long term securities. They present in some ways too a rather marked analogy to savings banks, except that savings banks represent a pooling of lenders only.

[5] The only parallel in the investment sphere is found in the cooperative bank, which is of relatively minor importance.

the other hand, through the association of lenders, the withdrawal of certain enterprises from the circle of lenders is compensated broadly speaking by the advent of others. Thus its funds again become available automatically to the individual lending enterprise through the commercial banking system. In the investment sphere, however, this availability is attained in another manner. Whereas in the commercial pool the discount market is primarily a question of the internal organization of the banking system, in the investment pool the security market plays a far wider rôle. In the investment pool the individual investor bulks large among the sources of capital supply. In general he holds title to a specific security rather than what is in effect claim to a proportionate share of the total holdings of a group. For him, shift of his investment is accomplished only through sale to another individual or perchance to an association. Moreover, in case the depositors of the association call upon it for funds, in the absence of the self-liquidating feature in its loans and investments, it must have recourse to the security market. Thus a broad open market is indispensable. It is in this connection that security speculation performs its first function, to which attention will be directed presently.

Considering now merely the investment pool, the forms which the "investment" of capital assumes therein are three fold: (1) ownership of securities, (2) loans on securities, made largely either to bond house or speculator, and (3) direct loans to the individual enterprise. The individual engages only in the first class of activity; the association, however, engages in all three. We will concentrate our attention largely upon the association, that is, upon investment banking, in its loan aspects. In the case of the second category, it assists in the direction of the flow of capital into investment, either through loans to enterprises engaged in what is akin in certain ways to a species of commercial

activity, or else in providing capital equipment to the basic value element in the securities involved, during what we may term the process of "seasoning."[6] In the latter case the speculator—a special class of individual holder—supplies the fluctuating additional amount. Speculation here performs its second function, namely, that of directing the flow of capital into investment. Direct loans to the individual enterprise, in order to involve the time element, are practically made for employment as fixed capital. As noted above, there is, however, a shading in time, both of loan and of operation to which the same is applied, between such loans and commercial loans, and a large twilight zone exists.

2. In examining at greater length the service of security speculation in the investment pool, it will be desirable to take as a point of departure that part of investment banking which has been designated as "commerce in securities." The flow of capital will be considered in the reverse direction, rather as a flow of securities than as a flow of capital. The conventional conception of the process as given in the usual treatises dealing with corporation finance is that typified by wholesale and retail bond house and savings bank. But there is another process as well. All securities pass through a speculative stage and a safe stage;[7] though the former, while evanescent in some cases, may conceivably endure a considerable length of time in others, ultimately the transition must occur. Considering a new issue of securities, the initial step is that of grading. This

[6] The two classes of security are roughly typified respectively by bond and share.

[7] The choice of the above terms is perhaps not an example of particularly felicitous phraseology. As will be evident from the discussion to follow, the term "safe" connotes merely lack of uncertainty as to conditions surrounding the enterprise whose securities are under consideration, and hence absence of erratic price fluctuations.

speculation[8] is believed to perform. Assuming that nominal rate of interest and date of maturity have been fixed, this involves the determination of the market value of the obligation; in other words, the determination of the implicit rate of interest, to employ Fisher's terminology. In the case of safe securities, all the conditions surrounding the underlying "security" are known; in the case of speculative securities, there is of necessity a continual readjustment of market value to variations in "security" and income.[9] Assumption of risk of fluctuations in value is concentrated in the common stock, and purchasers thereof deliberately assume collectively the rôle of risk bearer for the security holders of the enterprise in question, which rôle becomes negligible only in case the risk has become standardized. The suppliers of capital in both cases differ; in the one the investor, properly speaking, so acts, while in the other the speculators themselves collectively act as the immediate source of capital supply. After the security has demonstrated its worth, or the exact degree of worth, if that merely were in doubt, the speculators slip quietly out, liquidating their holdings and passing to other more uncertain and therefore more congenial fields, and the investors enter. If the security again later enter the fold of the doubtful, the investors make their exit, and the speculators again romp merrily within its confines. Speculation thus serves to bridge an intermediate stage in the life history of a security.

This gives us the conventional conception of the rôle of security speculation. But speculation is not a static phenom-

[8] We confine ourselves in the following discussion to what we may term spot speculation, as commonly practiced upon the American exchanges.

[9] The two senses of the word "security" as employed in this sentence will be readily distinguished.

enon; rather is it dynamic, and associated primarily with the periodicity of economic life. Hence a refinement of the above has developed.[10] While some securities have passed through the speculative stage, and some have passed their entire life history thus far therein, others continually flow alternately through a speculative and an investment period. In any event, the periods are unstable. The speculator carries stocks over the period of uncertainty. With the upward turn of the business cycle, speculation becomes active; the speculators perceive the investment possibilities of securities, both old and new, of which a considerable amount now commence to make their appearance. As dividends and the fruits of prosperity become available, investors enter the market; they appreciate the virtues of securities, though somewhat later than did the speculators, who in consequence receive an increased price as reward for their foresight. Near the peak of the price level, few investors, however, make purchases; the effect of the turn in prices is merely to decrease the number of speculators through the elimination of the unfortunates who had been too optimistic. Moreover, increased investment occurs again to some extent at the lower prices, which attract investors whose marginal demand prices these represent. There is thus a fairly satisfactory absorption of securities by investors. This theory would apply equally both to the grand sweep of the business cycle and to the minor fluctuations. In the performance of this rôle, security speculation is conventionally conceived of as performing a function similar to the directive function of commodity speculation. Just as the distribution of goods is guided in time and place, so also is the flow of capital guided from industry to industry through price

[10] The various aspects of this conception are considered in Osborne, Speculation on the New York Stock Exchange, September, 1904-March, 1907, New York, 1913.

differentials (in rates of return) established between the obligations of the several industries. Moreover, speculation anticipates the investment demand, judgment as to the actual absorptive power of the market being thrust upon the speculators. Through the fixing of the general rate of capitalization, it attains equilibrium between the funds of investors and the desires of enterprises. Otherwise phrased, speculation directs the flow of capital into investment. It will be apparent, however, that considerable difference exists between the manner in which commodity and security speculation perform these parallel functions, and the analogy cannot be pressed too closely.

Speculation provides a market for securities by creating a special class of purchasers. But it benefits alike the corporation whose future is tinged with uncertainty, and the investor who now holds securities. The former we have considered at some length, and need not elaborate further. The benefit to the investor occurs in two cases; where the security is passing from the investment into the speculative stage, or vice versa, where it is as yet incompletely absorbed by investors. In these two cases speculation compensates for the lack of investment demand, and supplements the new capital of investors by providing both a flow of capital into new investments and a means of rendering possible the ready sale of securities. The present holder of securities is enabled to dispose of the same at will, thus rendering it possible for him to protect himself against price fluctuations, to shift his investment when he so desires, or to convert the same into liquid funds. Nor is this service of risk assumption slight. While enterprises are as stable under the newer economic regime as under the old, individual property, which has to be assembled in increased mass to equip these enterprises, tends to become more mobile. The "loan" made to the corporation, as evidenced by certificates of stock and bonds, is not intended to be repaid at

maturity, for the value of the enterprise as a going concern frequently far exceeds the value of the assets when dissociated therefrom. To the individual investor, on the other hand, an investment once made does not now mean an investment forever. Shiftability is demanded, and obtained through the mechanism just indicated, of which speculation is an integral part. By this means a shifting set of holders against the totality of existing securities is rendered possible, and the barter of investments between individuals, also the exchange of the same with new savers for their fluid wealth, is effected.

3. As suggested above, investment banking may be resolved into several types.[11] Considered from the point of view of method of investment of funds, we have the direct loan to a business enterprise which will be employed by it for fixed capital purposes, the loan on securities, either to those engaged in what has been termed commerce in securities, or in speculation, and the direct holding of securities. Considered from the point of view of manner in which funds are obtained, we have on the one hand savings deposits and time deposits of the so-called "commercial" bank, on the other hand its inactive checking accounts. Let us consider here the deposit aspect. Both of the types mentioned, as is also the case with commercial banking, represent an application of the law of averages, in that from a large number of individual deposit accounts practically or actually repayable on demand (i. e., realizable at will in goods or services by the holder), there is obtained a sum of capital roughly fairly constant in amount. With the savings deposit, actual saving prior to the making of an in-

[11] Abstraction is made in the discussion which follows from insurance conducted upon the actuarial principle of reserves and from cooperative banking. The extent of the applicability of the exposition in the text to both types will be readily apparent to the reader.

vestment or loan is requisite. Not so with the demand deposit. In this case the technique of commercial banking is applied in the investment sphere, and it is assumed that no difficulty will be experienced in obtaining individuals or enterprises to "hold" the loan or investment,[12] reliance being placed upon the existence of saving sufficient in volume and permanence to support the given operations. In this case the demand deposits may also serve as a circulating medium, and there is coalescence of permanent capital supply and currency. The process is more refined than in the case of the savings deposit, and presents considerable technical difficulty.

In order to understand the process clearly, it is necessary to remember that, while steel, for example, is in process of being fashioned into a machine, and until the finished machine passes from the hands of the manufacturer thereof into those of the user, the transactions which occur are in the commercial sphere, and the compensating deposit credits which are to be set over against the goods represented, are held by business enterprises. When the machine reaches the hands of him who will employ it as a finished active production good, the deposit credit must be held in the investment sphere. The deposit is merely a device through which to effect the "pairing" process of abstinence on the part of one who has made a contribution to the social product with the obtaining of a good by one who has not made such a contribution. In other words, it serves merely to enable one individual to assign his claim to another, and thus to supply the required capital. Let us take first the case in which what we may term the investment banking principle is employed. Here the individual transfers the demand deposit credit which he has obtained

[12] As is well known, the number of successive holders will be less than in the commercial sphere.

in return for a previous contribution made either by himself or another, to the investment banking system in return for a savings or time deposit. The investment banking system transfers the demand deposit to a business enterprise, which purchases therewith a good which it will employ as a finished active production good. Savings depositor and the enterprise using the good "pair." The manufacturer of the machine receives the demand deposit in exchange for his machine, which deposit credit "pairs" with the original contribution made by either the individual or on the individual's behalf.[13] This exposition assumes however that the investment banking system and the commercial banking system are structurally distinct. Where this is not the case, and the same organization conducts both types of banking, the initial deposit credit is at first canceled. By virtue of the savings deposit, the creation of a new demand deposit, however, is rendered possible, which is then transferred in the manner just indicated. Where the commercial banking principle is employed, the situation appears somewhat more complex. Here the initial deposit credit is of a demand nature, and is the means of commencing a series of exchanges in the commercial sphere. Only as deposits which were formerly of an active character are becoming inactive, or as the loans or investments of old inactive deposits are being repaid, is it possible to do this. Such deposits "pair" with the production good received by the enterprise, and the contribution which the holder of the inactive deposit has made pairs with the demand deposit held by the seller of the production good. This means then that certain demand

[13] As remarked in Chapter III, we cannot of course attempt to trace throughout their entire life history the particular deposit credits arising in connection with a given loan or investment operation.

deposits migrate from the realm of the active to that of the inactive; in other words, that they transfer from the commercial to the investment sphere. In the investment sphere they thus function as offset against that part of the existing volume of loan and investment operations, in the supply of funds for which the commercial banking principle is employed. The loan or investment is made and the demand deposit is created on the assumption that elsewhere there exists an inactive demand deposit which may serve in the pairing process indicated. The process is unlike that which prevails in the case of commercial banking in that the subsequent holders of the deposit credit do not successively act as the source of supply of the capital required in the initial operation.[14]

In investment banking there is no distinctive process of cancellation. Because of the fact that there will be no counter flow of goods in the near future from the recipient of funds, a holder is required of a deposit which "pairs" with the good obtained by the recipient of funds. The capital is supplied for permanent use, whether through the manner in which applied by the recipient (in the case of the direct loan), or through the fact of participation in the enterprise, either by the banking system (in the case of direct holding of securities), or by an intermediary who obtains funds from the banking system (in the case of the loan on securities). As the individual depositor exercises his prerogative to withdraw, another must take his place.

[14] For the sake of ease of exposition, a simple case has been considered in this paragraph. No additional theoretic principles would emerge in passing to more complex cases, such as where there are intermediaries introduced in the form of bond houses or speculators, or where part of the capital obtained is employed by the recipient as circulating rather than fixed capital.

It will be observed that we have spoken in the text of "pairing" between deposit credits and goods, as well as between individuals. Two separate levels of the analysis are represented.

Where the investment banking principle is employed, the savings or time deposit is canceled and the holder receives a demand deposit, which places him upon the same plane with the individual holder of the deposit credit in cases where the commercial banking principle is employed. In either case he then employs it in the commercial sphere to obtain the good or service which he desires, and cancellation of the deposit credit is effected in the manner indicated above in connection with the discussion of commercial banking.[15] Another illustration is afforded by the repayment from the proceeds of the sale of securities of a loan made to a bond house or speculator. Here a shift is made in the holding of the security, and in place of the individual depositor who supplied the required capital, an individual investor now holds directly the securities in question. The direct loan, however, may be repaid from the profits derived from the operations of the borrowing enterprise. Cancellation will then occur as such funds are applied to the reduction of the principal of the loan, either successively or only at the expiration of the loan to effect repayment of the total amount, and equivalent demand deposit credits are turned over to the investment banking system. In this case a counter flow of goods extending over a period of time represented by the duration of the loan may be considered to occur, consisting of a part of the goods regularly produced by the enterprise in question.[16] In last analysis cancellation occurs rather in connection with the operation of technical devices whereby goods are exchanged, namely, the loan and the deposit, which, created to effect the ex-

[15] Cf. Chapter III, Section 5.

[16] Difficulty is experienced in attempting to broaden this conception to include cases where no loan has been made to an enterprise, but where its securities have been purchased instead. In such cases, the profits of the enterprise result merely in giving it control over an increased amount of demand deposit

change, are canceled when they have accomplished their purpose. The active demand deposit brings into the hands of the business enterprise the good destined to serve it as passive intermediate or finished production good; the inactive demand or time or savings deposit renders it possible for the enterprise to continue, in the absence of direct supply of capital to it by an individual investor, to possess this good. In essence a barter of goods is thus effected, in investment as well as in commercial banking.

4. It will be apparent that investment banking involves a judgment as to how far loan and investment operations may proceed with safety.[17] This problem presents a twofold aspect: (1) the amount of funds available in the investment banking system for such investment, and (2) the possibility of realizing upon the investments held. The first involves consideration of the activity of accounts, as well as judgment of the amount of new saving which will find its way into the investment banking system. The second, which is one phase of the so-called "liquidity" problem, and concerns itself primarily with securities, is more largely a problem of the individual unit than of the system as a whole. It involves judgment of the amount of new and continued saving held outside the system, and the consequent opportunity afforded to turn over to outside investors certain of the investments held, as well as the possibility of meet-

credits, which it may, as it chooses, either distribute to its stockholders or employ in its operations. There is no ultimate direct offsetting process. It may be noted that in the case of direct holding of securities by the investment banking system, for that part of the funds represented which is employed by the recipient enterprise as circulating capital, a greater volume of demand deposit credits merely continues in existence over against the securities.

[17] It is obvious that a similar problem exists also in the case of commercial banking.

ing withdrawals by selling some of the securities in the market, where they are then purchased by former depositors, part of the assets thus in effect being turned over to depositors who have withdrawn from the group.[18] We will consider first the deposit aspect. Greater difficulty inheres in the application of the commercial banking principle than in the employment of the savings banking principle. Because of the demand character of the deposits, and consequent capacity to serve as currency, withdrawal of the same may be effected without direct notification to the individual bank that they are to be employed. The employment of the savings banking principle, too, insures the existence of sufficient saving at the outset, although no more definite assurance is afforded through its use that these deposits will not be employed than where the commercial banking principle is employed. Not only, however, is the future volume of funds not definitely known, but at any one moment the exact limits of commercial fund and investment fund are exceedingly ill defined. In the disposition of the capital holdings of the individual, the psychologic factor bulks large. At the will of the individual the banking system and the security markets must be prepared to effect the desired readjustment in his investments, or that resulting from changes in the composition of the body of investors. On the other hand, the fluid capital held by individual enterprises in the form of demand deposit credits may be said to be now of commercial, now of investment character. Such capital may at times be in excess of the needs of the enterprises therefor, and the deposits to the banking system may appear instead to assume an investment character. However, should they be employed in

[18] Saving banks at times in the past are reported to have done this directly, United States Government Bonds being the securities in question.

the investment sphere by the banking system, in the event that they are recalled by the enterprise for use in the commercial sphere,[19] such commercial demands will have priority, and provision must be made for them.[20] The shift between the two relations in which such capital holdings stand to the individual enterprises is of course a corollary of the status at the time of industrial and commercial activity, and at any one moment determination of the exact line of demarcation is impossible.[21] There is no outward sign marking the transition of such deposits from the commercial to the investment sphere, nor likewise marking their movement in the reverse direction. While its character thus changes, the deposit outwardly remains the same; the relationship of banking system to depositor is unaltered. The same organization thus may carry on both commercial banking and investment banking at the same time, and, where the commercial banking principle is employed, under the same outward forms as respects the deposit aspect. The cleavage between investment banking and commer-

[19] The autumnal flow of funds from New York and their flow in the reverse direction during the remainder of the year, may be cited as a case in point. Thus the phenomenon noted in the text may be related to seasonal as well as to cyclic changes in economic activity.

[20] In the event of such employment, the question of the volume of new saving—either within or without the banking system—available to fund the same, arises. We pass here to a consideration of the investment aspects.

[21] It should be remarked that the problem concerns the total fluid capital holdings of business enterprises. Certain enterprises may at any one moment hold an amount considerably in excess of their circulating capital requirements, yet business enterprises as a whole hold roughly only the amount so required. In this event no surplus would exist which could be applied through the banking system to investment use.

cial banking then is one, not of structure, but of function.[22] We see thus also that under certain conditions there is another factor in the pool of investment financing, namely, the business enterprise, representing a group of individuals and mediating as it were between them and the banking system. This fact by no means, however, alters the analysis previously made of the character of the investment pool and the rôle of the various factors therein.

We turn now to the reverse side of the shield, namely, the investment aspect. The outstanding feature is the absence of a direct and regular liquidating flow of commodities in the near future resulting from the operations for which the funds are employed, and the consequent necessity of attaining in other ways the requisite elasticity in the investment account, in particular the potential decrease of the same to correspond with such changes in the deposit account. The adjustment of maturities plays a lesser rôle in investment than in commercial banking, and moreover itself in large part involves in the former in the case of the loan on securities merely shift to another of the burden of effecting the needed readjustment. Separate analysis must be accorded the direct loan to the business enterprise, made *prima facie* for a fixed purpose, and the loan on or direct holding of securities. The direct loan to the business enterprise is in large part a problem of repayment, as is the case in commercial banking, and an amortization problem results.[23] The credit analysis involved thus is similar in certain respects to that in the case of commercial banking, where the line of credit system is employed. In the case of the loan on or direct holding of securities,

[22] Thus the argument sometimes made, as, e. g., by Anderson and Moulton, from the statement of condition of national banks (though with respect to loans and investments), is worthless in this connection.

[23] Cf. Ch. V, Section 3.

the analysis consists of two parts. The analysis of the general operations of the business enterprise whose securities are represented, which in the case of commercial banking and of the direct loan in investment banking, involves an analysis of yield therefrom as affecting the power of repayment, involves in this case an analysis of yield therefrom as affecting the interest account, and involves a study rather of the ultimate safety of the investment. The second part concerns the shiftability at a given price of the investments held. This aspect of the analysis, while also present in commercial banking and the first type of investment banking, plays a lesser rôle therein. In commercial banking, as has been remarked above, the question is primarily one of the internal organization of the banking system. In the case in question, however, owing to the feature of participation as contrasted with more or less temporary advance, liquidity is attained through shiftability. Judgment must be reached as to the amount of new saving which will be available outside the banking system, as well as the amount which will be available in the same. While the banking system is responsible for effecting the readjustment desired, either in the investments of the individual investor-depositor, or those resulting from changes in the composition of the body of investors, it can only do so as the aid of individual investors is obtained, either within or without the banking system.

In large measure the loans on securities will serve to finance security speculation. This is but a special case of the general analysis just made. In the service of speculation in directing the flow of capital into investment, the volume of speculation must be adjusted to the investment demand, and this in turn depends largely upon the banking support which is tendered such speculation. The questions here raised parallel in considerable measure those indicated in connection with commodity speculation.

It thus is apparent that the problem which confronts the individual unit and that which confronts the investment banking system as a whole are similar. The question of the technical methods of operation of the system cannot be answered entirely *a priori,* but requires also a scientific analysis of such empirical data as are available at the time. Considering investment banking merely as an institution, there is no reason to doubt that it, and the pool of investment financing of which it is a part, may operate entirely satisfactorily.[24] There is no basic weakness inherent in it, nor in commercial banking. Both institutions thus may operate entirely independently of each other. In fact, as will be seen from our previous analysis, investment banking cannot rely upon commercial banking for funds. Such reliance is possible only if the terms be considered in the structural sense, and then only insofar as time and inactive demand deposits are held by organizations which to a greater or lesser extent do a commercial banking business. On the other hand, were business enterprises themselves as a whole not to hold their total circulating capital requirements, reliance upon the investment banking system for such funds would be possible. This, however, would involve a change in the methods of financing which are now employed, and commercial banking as we conceive it today, if it did not entirely disappear, would at least find its field of operations restricted.

5. Opinions differ as to which of the two systems may operate more satisfactorily. Underlying this difference of opinion is difference in judgment as to the relative technical

[24] It should be noted that in this discussion we do not touch upon the question as to whether certain advantages may not accrue from linking up investment banking and commercial banking in certain particulars. This involves more detailed consideration of the organization of the two systems, and will be considered in the following chapter.

difficulties inherent in the solution of what is perhaps the principal problem involved in the conduct of both commercial banking and investment banking, namely the extent to which loan and investment operations may proceed with safety. From the purely banking point of view, the solution of this problem depends in large measure upon the possibility of contraction in the volume of such operations conducted by the banking system, and disagreement exists as to the relative potential contractive power which exists in the two spheres. In our discussion of commercial banking, we ascribed it largely to the self-liquidating power of the commercial loan. Certain writers have denied the existence of such liquidity, and in consequence hold a conception of banking radically different from that presented in the present work. The argument against the liquid character of such loans points to the twofold continuity in the economic process, both (1) in the operations of the individual firm, and (2) in the interdependence which exists between the several stages in the economic process. It is stated that "the business enterprise in many cases, such as in manufacturing, wholesaling, and retailing in staple lines, needs to borrow working capital continuously," while "the bank expects to tie itself up more or less permanently with its customers and to extend them continuous lines of credit."[25] The period of the loans, however, is adjusted to the production period of the business enterprise, and there is thus potential liquidity at least at the close of the loans, even though this involves in some cases curtailment of the operations of the enterprise. The actuality of the liquidation is seen in the satisfaction in general of the requirement of a periodic "clean up" of the indebtedness of the business enterprise. While the individual loan is not subject to repayment at the will

[25] Moulton, Commercial Banking and Capital Formation III, Journal of Political Economy, Vol. XXVI, pp. 707, 718.

of the lender, and hence may not be realized upon at any one moment, a regular and continuous flow of maturities may be arranged, and the value thereof is seen in the fact, e. g., that reliance is placed thereon to a considerable degree in the operation of the gold exchange standard. It should be noted that as corollary of the above view a vital change occurs in the conception of commercial banking. It no longer represents a pooling of circulating capital surpluses and deficits of the totality of individual business enterprises, but rather a means of furnishing business enterprises with permanent working capital which is obtained from another class in society. In other words, it becomes an investment process.

A further argument against the self-liquidating character of the commercial loan is that not only will denial of accommodation result in a curtailment of the activities of the enterprise to which accommodation is denied, but that there will be an effect produced upon other parts of the economic process as well. Curtailment of the demand for the products of enterprises in preceding stages will result, as well as for articles in final consumption or production form, as the various distributive shares are spent or invested by the recipients thereof, and hence the passage of existing goods through the several stages in the economic process will cease. Due to this interdependence in the economic process, disastrous effects will accompany any attempts at widespread curtailment of accommodation. This, however, is primarily a problem of the crisis, and in the investment sphere results similar in many ways would accompany attempt at widespread curtailment of loans on securities. It should be noted, moreover, that there is a minimum beyond which the curtailment of accommodation, and hence of industrial activity, need not extend, inasmuch as a considerable part of the total number of business enterprises will possess circulating capital sufficient for their

requirements, although the curtailment of industrial activity, and hence of demand for goods, may affect to a different extent the various parts of the economic process.

While in commercial banking the principal source in obtaining liquidity is conceived to consist of repayments by recipients of funds, in investment banking liquidity is obtained through possibility of transfer to another. It is obvious that this reputed shiftability is of importance only in the case of demand paper collateraled by securities, and the present discussion will be confined thereto. In addition to depreciating the liquid character of the commercial loan, attempt has been made to establish the positive superiority of the security collateral loan. A different organization whereby capital is supplied exists in the two cases, in that in the case of the security collateral loan there is an intermediary between banking system and ultimate recipient (the business enterprise whose securities are in question), upon whom falls the burden of finding a new holder. But this does not alter the fundamental aspects; if there is not the purchasing power available in the market, lack of success will be just as certain in the investment as in the commercial sphere, and affect the banking system equally. The existence of this purchasing power in large measure is dependent upon the area in which the evidence of supply of capital may be disposed of. The underlying theory provides for the obtaining of a market broad enough so that the withdrawal of one supplier of capital will be compensated by the advent of another, and that the law of averages thus may be applied. In the case of investment finance, there has grown up a large body of direct suppliers of capital (holders of investments) on the one hand (although these are supported in considerable measure by the funds of the banking system), and on the other hand certain standardized enterprises, representing but a small part of the total number of business enter-

prises, which are the ultimate recipients of the funds. Through this market organization, there is rendered possible a shift of securities from one investor to another, and the individual enjoys the advantages thereof. In the commercial financing system, however, as has been pointed out above, the organization of the several factors in the pool differs, and the individual bank, not the individual enterprise, bulks largest; there is a multitude of individual borrowers, with relative concentration in sources of capital supply. The problem there is one of facilities for shifting loans between individual banks; otherwise expressed, of pooling the surplus of one bank with the deficit of another. It becomes one of the organization of the banking system, in particular of the relationships existing between individual banks. As will be seen in the following chapter, the requisite cooperation may be effected in various ways, most prominent among which is by the method of rediscounting, through the agency of a central bank or group of banks. Inasmuch as this is a development which in the majority of cases represents a product of evolution and custom rather than an attempt at conscious change through legislation, no reason exists for designating it as "special machinery," while holding that in its absence the natural organization prevailing in the case of security collateral loans must afford superior liquidity.[26] The shiftability of commercial loans between individual banks provides a valuable adjunct to the self-liquidating character of the operations for which the proceeds of such loans are employed by the recipients thereof.[27]

In last resort, the question of the relative merits from the point of view of liquidity of the commercial loan and

[26] Ibid, pp. 713, 723, 730.

[27] Compare Stewart's criticism of Anderson, Journal of Political Economy, Vol. XXV, 1917, pp. 996-7.

the loan collateraled by securities may be resolved in large measure into a question of relative elasticity of demand. On the one hand, there is the demand for commodities, and the supply of capital in the commercial banking system available for such loans; on the other hand, the demand for securities, as provided by the combined funds of individual investor and investment banking system. In the consideration of this question, a distinction is drawn by Moulton between "normal" times and times of crisis.[28] In times of crisis it is held that nothing is liquid, while for "normal" times the existence of lower rates on security collateral loans is claimed, and is held to attest superior liquidity. At the same time, however, it cannot be denied that greater inelasticity of demand as reflected in the greater fluctuations in rates charged for accommodation exists in such periods for the security collateral loan, and the entire matter is by no means clear cut. In any event, there certainly does not prevail a situation in which the commercial loan conspicuously lacks liquidity at the same time that the other type of loan possesses such liquidity. The commercial loan is not a conspicuous failure with respect to liquidity in "normal" times, nor is the loan collateraled by securities an outstanding success in times of crisis.[29]

[28] Ibid, p. 723.

[29] Either of these is a logical prerequisite to the view of Anderson to be noted below, and in the absence of the establishment of either, his theory as to the technical method of operation of banking falls to the ground. It should be noted that Anderson's argument as to the relative merits of the two classes of loan is confined practically to mere assertion, whereas Moulton, while not explicitly going to the same length in his general conclusion, has attempted to supply most of the constructive analysis required. It is interesting to trace the relation of Moulton's banking theory to the specific problem which he selects for consideration in the series of articles to which reference has been made. Commencing with the seeming para-

6. If the doctrine of the non-liquidity of the commercial loan be granted, likewise the superiority of the loan collateraled by securities, there is suggested as a logical culmination the employment of a liquid base of loans of the second class to render possible the granting of the first mentioned character of accommodation,—in other words, to regard the second as the smaller amount of current assets with which to support a larger amount of relatively fixed assets, and thus to obtain the requisite margin of potential contraction.[30] This involves a well known problem of banking technique, and finds perhaps clearest expression in current discussion in savings banking circles. In view of our previous analysis, it is unnecessary to discuss the fallacies involved in this view, and we may pass at once to a consideration of several other aspects of the general theory of banking which accompanies adherence to the doctrine in question.[31] First comes the obliteration of the distinction between commercial banking and investment banking. These are not two separate though related institutions, but there is rather one institution, banking; the entire deposit structure, both demand and time, acts as offset to the entire loan and investment structure, although the existence

dox of increased capital formation in a time of increased consumption, this appears to him to be rendered possible by universal employment and consequent full productive activity, as compared with the slack found during the previous stage of depression in the business cycle. Conditions are then favorable to active demand for products, while there is a process of "painless" saving by the capitalist class from the large returns it receives. But to enable business activity, accommodation from the banking system must be readily available, and this is limited by the reserve position. Hence, in the elaboration of an accompanying theory of banking, the creation of loanable funds on the basis of given cash reserves is stressed.

[30] Foremost among protagonists of this view is Anderson, op. cit., Ch. XXIV.

of various types of both deposits and loans and investments must of course be recognized. Banking becomes a structural category; our interest lies in the bank. Its essential feature consists in coining into purchasing power either present wealth, that is, finished goods held off the market, or else future prospects. The bank is a pawnshop; through its application of credit there is effected the universalization of the characteristic of money, namely high saleability.[32] Through its efforts ever wider and wider become the marvelous effects of the modern credit system.

We have contrasted with this view the conception of a twofold institution of banking, each part of which bears a definite relation to the economic process. Commercial banking is a means whereby there is effected pooling of the social circulating capital, the temporary surplus of one individual business enterprise through it being applied to the temporary deficit of another. This pooling is effected through mediation between buyer and seller, the latter being the initial holder of the deposit credit, and the successive holders thereof as it is transferred supplying the offset to a corresponding amount in the existing loan structure. The deposit credit serves as a circulating medium, and we have here coalescence of capital supply and the currency system. The loan enables the buyer to obtain the good for a period of time sufficient to enable him to pass the same through his stage in the economic process. At the close of his production period the good is sold, and cancella-

[31] It should be noted that while these other views are corollaries of the first mentioned doctrine, acceptance of them by no means necessarily implies acceptance of the latter. Thus Moulton, while apparently ascribing in general to the views which follow, dissents from Anderson's doctrine of the indispensability to the operation of commercial banking of the loan collateraled by securities.

[32] Cf. Anderson, op. cit., pp. 475, 591.

tion of both loan and equivalent deposit credit is effected. These are the essential features of commercial banking. The institution of investment banking differs in important particulars. In the pool of investment financing, the individual investor is the lending unit, not the business enterprise, and relative permanence of investment prevails with respect to the ultimate recipients of funds. In this pool the association of those who supply capital, in other words, the institution of investment banking, plays a far lesser rôle; the individual investor (including the speculator) bulks largest. In the absence of the self-liquidating feature found in the commercial loan, it is upon him that reliance is placed in investment banking when the depositor desires to withdraw from the group, and this withdrawal is not compensated for by the advent of another, while the individual investor thus likewise obtains shiftabality of his investment. In short, a different character of cooperation is obtained in the commercial and investment spheres, and obtained in a different manner. Functionally, then, commercial banking and investment banking differ, and both stand in distinctive relations to the economic process. Only when we recognize the distinct character of such relations, and analyze them in the above manner, can we hope to obtain an understanding of the institution of banking.

CHAPTER VII.

OPERATION OF THE BANKING SYSTEM

1. It is evident from the preceding analysis that investment banking is the center of the investment credit system, just as commercial banking is the center of the commercial credit system. Generalizing, we may say that banking is the center of the credit system. But the position occupied by investment banking differs in some particulars from that occupied by commercial banking. Investment banking plays no rôle which corresponds to that played by commercial banking in the process of crediting and debiting the individual units for contributions made and goods or services received, and thus acting as bookkeeper for society with respect to society's current funds. The savings of individuals are not represented to the same extent by deposit credits, but by direct holding of securities instead. Rather is the central position occupied by investment banking evident in its dispensation of credit, i. e., in its loan and investment operations. These present a two-fold aspect. First is the selection of the types of enterprise to which accommodation shall be given, and the individual enterprises of each type. Banking thus is not merely a passive, but is instead an active factor in the economic process.[1] In the selective operation the action of commercial banking and investment banking is substantially similar, and their position is well recognized.[2]

[1] It will be observed that in the previous analysis, in particular in connection with commercial banking, the institution has been considered largely as purely instrumental.

Like the entrepreneur, banking occupies a strategic position with respect to the course of business activity, though exercising its control at a somewhat later stage in the life history of the economic undertaking. It thus becomes the center of the economic process as well. The services which it renders include both dynamic control and static mediation. The second aspect involves the extent to which loan and investment operations may proceed with safety. As indicated in the previous chapter, this is rather essentially a problem of the estimation of the amount of deposit credits and individual savings (as a means of disposing of securities held, as well as a source of demand for securities which are to pass into the hands of investors) which are available at present, in addition to their probable future course. The question becomes, not how much should be loaned, but how much is there available to loan.

2. Commercial financing and investment financing differ in two important respects in the control which is exercised in each sphere. The first point of difference results from the homogeneity which exists in the one sphere, as contrasted with the heterogeneity which exists in the other.[3] This renders unified control over and direction of the operations of the first more simple than in the case of the second. With commercial financing, control becomes a matter of coordinating the units comprising the commercial banking system, and here the approved method is through a unification of reserve holding, placing the same in charge of a single structural agency or group of agencies, in the person of a central bank or group of banks. This organization exercises control over both loan and deposit aspects. In this sphere the newer

[2] Cf., e. g., Anderson, op. cit., pp. 484 ff; Schumpeter, Theoric der Wirtschaftlichen Entwicklung, Leipzig, 1912, Ch. III; Sombart, The Jews and Modern Capitalism. Translated by M. Epstein, London, 1913, p. 109; Hawtrey, op. cit., p. 197.

[3] Cf. Ch. VI, Section 1.

theory of the function of reserves is fully developed, namely, to place in central hands an amount of liquid funds or claims, supplied by individual banks which have a surplus, to be applied to the use of those who are in need of funds; in short, to obtain the most effective place distribution of the circulating capital thus represented. The individual bank which has made a certain contribution to the composite reserve funds of the banking system is entitled to control of circulating capital to an amount bearing a certain relation to its contribution, and if it does not already control this amount, may seek to obtain control of the difference between the amount and its actual holdings, as represented by its deposits. Specie holdings operate merely as an objective check on too great expansion of credit, in other words, as has been remarked above, on overestimation of the funds which are available in the hands of business enterprises. The bank reserve operates in this manner, rather than as a means of redeeming deposits in objective wealth, which represents the original conception of reserves, and which caters to man's psychologic reluctance to part with a good without absolute assurance of what he regards as an equivalent return. With reference to the loan aspect, through its position as a source of supply of funds to individual banks which are "loaned up," the central bank is enabled to select both the type of enterprise and the specific individual enterprises of each type to which accommodation will be granted. Its selective activity is confined basically rather, however, to the marginal enterprise than to the entire rank and file of enterprises, although special measures such as the rationing of credit may be taken to control the entire field.[4] In the case of investment banking no such relative simplicity exists, and the matter resolves itself rather into two separate problems:

[4] The technical methods whereby control is exercised, in particular the discount rate, are beyond the scope of the present work, and their operation and efficacy will not be discussed.

(1) the control which is exercised by one part of the pool of investment financing over another part, and (2) the control which is exercised within each part. These we shall consider presently.

Commercial financing and investment financing differ also in the effectiveness of the control which may be exercised over the directions which capital investment shall take, due to the difference in the fundamental nature of the two pools. The control which is exercised in commercial financing may be far more drastic in its effects, as well as more rapidly carried out. Due to the self-liquidating character of the operations to which the capital is applied, it would be possible to change the composition of industrial activity within a relatively short period. The extent to which this could be done would of course be limited by the fact that it would be necessary to employ the existing fixed capital equipment in conjunction with the circulating capital. Application of the circulating capital in totally new directions would be possible only insofar as new capital in the other sphere is applied in new channels, and the existing equipment is diverted and adapted to other types of operations than those for which it was originally constructed. In the case of investment financing, the effect upon the composition of the industrial world would be worked out with respect to the part employed as fixed capital, first through the direction of the increments of new capital into different channels, and thus, mathematically speaking, instead of changing x, through changing dx, and second through change in the equipment designed to replace existing equipment as the latter is discarded. The second form is of course under the control of the business enterprise. While this difference in effectiveness of control between commercial financing and investment financing is of no consequence where a positive mistake in judgment has been made by the banking system, it is of im-

portance where it is desired rather to anticipate and control the situation which is to exist in the future.

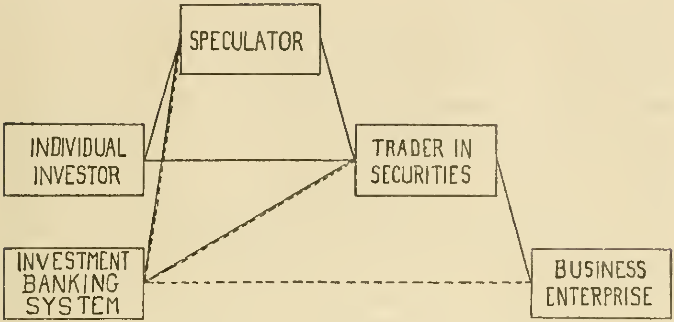
To turn now to the several elements in the pool of investment finance. As remarked in the previous chapter, we must distinguish first, the advance of capital represented by the direct loan to the business enterprise, and second, that represented by the security, either bond or share, including the advance made to a holder thereof. Where it makes advances of the first type, the investment banking system comes directly in contact with the business enterprise. In the pool of investment financing the process of capital supply in general, however, involves a succession of intermediaries. For the present purpose, we may consider these to be represented structurally by first, the trader in securities, second the speculator, who, however, may be eliminated, and is one step removed from the third, the individual investor and the bank.[5] In the process of capital supply, or, as it appears, when viewed in the reverse manner, of passing securities from one stage to another, the element in each stage decides,[6] on the one hand, in what manner to apportion funds to different types of industry, and to different enterprises of each type, while, on the other hand, it judges the amount of capital in the form both of individual savings for direct investment and of deposits, available for investment. While the

[5] It will be observed that the classification differs somewhat from that given in Chapter VI, Section 1. Under the term "bank" may be included, in addition to the bank having inactive demand or time deposits and the savings bank, also the insurance company conducted upon the actuarial principle of reserves and the cooperative bank. It will be apparent, however, that the major part of the analysis which follows in the text applies to the first alone.

[6] Though the emphasis of course differs somewhat, and certain elements may consider rather one aspect than the other. Thus saving banking is concerned rather with the gathering than the supply of capital.

individual investor and the bank, acting as "consumers" of securities, are thus the ultimate judges of the types of industry to which accommodation will be extended, and the amount of securities must be adjusted to the funds which they possess, at each successive stage judgment is passed on the given operation by the element in that stage. Each successive intermediary controls those who precede. But the intermediaries in the process, as is well known, do not operate entirely with capital which they themselves possess, and look instead to the banking system as a source of supply. This then enables a more direct contact by the banking system, and a more direct control by it of each stage in the process. Instead of entering merely at the close of the process of capital supply, it reaches well toward the commencement also. It thus can make the influence of its judgment promptly felt, instead of merely when the securities in question are offered to it for purchase, and thus can prevent commitments, rather than merely reject commitments already made. It thus also is enabled to exercise control over a wider area of the pool of investment financing than were it confined to its relatively small rôle as a purchaser of securities. Not only does it exercise this more widespread control directly, through loans to traders in securities, but also indirectly through loans to speculators, and thus it avails itself of the influence which speculation in turn exercises in "directing the flow of capital into investment." The control which it exercises over one part reinforces the control which it exercises over another. The situation in the pool of investment financing which has just been described may be diagrammatically represented as follows: [7]

[7] Abstraction has been made from direct offering of securities to the investor by the business enterprise itself, as well as from intervention by several intermediaries of the same general type.



Key :—loan ; - - - purchase of securities

Practically, then, the ultimate responsibility for the direction of the pool of investment finance falls upon the investment banking system, which becomes its overseer. Our second problem then narrows down to the consideration of the control exercised within the investment banking sphere. We note at once the absence of definite organization to this end. Due in part to the market for the investments held which is afforded by the security market, as described in the previous chapter, the need for a centralized reserve holder has not been felt insofar as a considerable part of the assets has been invested in well-known and listed securities. In fact, it is found that the reserve organization of the investment banking system is far inferior to that existing in the case of the commercial banking system. The underlying reserve theory, in particular in connection with the savings deposit and time deposit, may be termed the "available fund" theory of reserves, where the reserve consists of a supply of demand deposit credits on the books of the commercial banking system, rather than the modern conception found in operation in commercial banking today. The application of the modern reserve theory in the sphere of investment banking would involve not merely a coordination of deposits in order to render excess funds in one part of the system available to meet deficits in other parts, but would also involve taking

over part of the investments of individual units, and thus the exercise of selective power over the enterprises to be financed.[8] In investment banking, however, the danger of non liquidity of assets, in the form of potential liquidation by ultimate recipient of funds, is more pronounced than in commercial banking. This means that in this sphere the device serves to obtain more effective place distribution of existing capital, rather than to cope with a decrease in the amount of capital available. Thus it is thought necessary also to "fund" the investments which the reserve holder takes over from the individual units. Where attempt has been made to coordinate special parts of the investment banking system, such as in connection with rural credits, or with the War Finance Corporation in certain of its aspects, a funding has at once been provided of the investments taken over by the central organization,[9] through sale of the organization's own obligations to individual investors, rather than an attempt made subsequently to turn the investments over to individual units which are in possession of surplus funds. It should be noted also that the device is found rather in connection with securities which are less standardized and do not command as ready a market. It is here rather that the need for such organization has been apparent. A modification of the general form of control just sketched is found in the case of the Money Pool, the purpose of which was to provide through

[8] As the individual banks thus supply the reserve funds with which the reserve holders operate, it cannot be stated, as Hawtrey, op. cit., p. 205, does, that "statutory reserve proportions . . . no longer serve any useful purpose."

[9] While the operating principle (sale of own obligations collateraled by other securities, or sale of these securities with endorsement), is the same as in the case of one of the forms of trading in securities, the central organization enters at a later stage in the process whereby securities are passed into the hands of investors.

the cooperation of lenders a supply of funds for speculative dealings in stock exchange securities, while at the same time controlling both the volume and character of such dealings.

Aside from the control exercised in the ordinary course of business operations—in connection therewith and incident thereto—such as has just been described, there is also what may be termed external control. This has two forms. The work of the Capital Issues Committee during the war represents an attempt both to select from among different industries and to limit the total amount to the amount of capital available for the purpose, although not concerned with the gathering of this capital. At the same time, the control is exercised at the commencement of the financing process, and thus undesirable investment is prevented. This form, however, with its drastic regulation, is an emergency measure only. The second form of control is that represented by the "blue sky" legislation of various states, and the examination by the organized exchanges of securities offered for listing at these exchanges. Measures of this kind, however, have but one primary purpose—the selection of securities which are of a sufficiently high calibre, and thus to afford certain minimum safeguards to the investor. No attempt is made to judge the amount of new capital available, nor to check attempted overdevelopment in certain lines of enterprise. The aim becomes merely the elimination of the wildcat security, and this method must therefore play but a negligible rôle in the present analysis.

3. As banking is the center of both the pool of commercial financing and the pool of investment financing, and controls each, a consideration of the relationship between the two pools with respect to the general problem of control resolves itself into a consideration of such relations between commercial banking and investment banking. Two separate phases must be recognized, namely the problems involved and the methods of solution. The two problems indicated

above concern themselves with (1) coordination of the selective activities of commercial banking and investment banking, as well as the check which each exercises upon the other, and (2) apportionment to each use of that part of the total funds which it is judged is available in that sphere. For the present purpose, each of these two problems must be considered separately, although in our discussion of control within each sphere, the same agency was regarded as controlling with respect to both problems. Turning to the first problem, it will be remarked that investment banking "checks" the individual transactions of business enterprises upon which the commercial banking system has set its seal of approval only through the consumers' demand which it furnished for the production goods so produced. Where permanent capital equipment has once been raised for the business enterprise, however, subsequent requirements for circulating capital afford opportunity for commercial banking to check the judgment previously reached in the investment sphere. Thus the structural agency which controls in the commercial sphere is enabled in this manner at will to extend its control over the investment sphere. But this may be a wasteful process, and coordination of the selective activities of both would appear desirable to avoid misdirection of productive activity. In order to attain maximum efficiency, the control in the investment sphere, moreover, should be primarily at the source and should concern itself with loans to houses engaged in the process termed above "commerce in securities." This control by investment banking should be "linked up" with the control in the commercial sphere. In actual fact, such is now the case. The individual so-called "commercial bank" engages in both commercial and investment banking, in the latter in the operations just noted, and through this fact, symmetry of credit extension in the two spheres may be obtained. Both repress the same lines of activity, while

at the same time encouraging other lines. By this means, the controlling agency in the commercial sphere may also indirectly exercise control over the investment sphere.

The fact that the same organizations engage in both commercial banking and investment banking, in particular those operations which directly control the entire pool of investment financing, has an important effect upon the problem of the control which is exercised in the apportionment of funds to the two uses.[10] This structural cleavage, and the fact that both commercial banking and investment banking obtain by means of the deposit principle the funds with which they operate, has tended to obscure the broad underlying function of the pool of investment financing as contrasted with the pool of commercial financing, and the rôle of investment banking therein, and has caused investment banking to be regarded rather as an appendix to commercial banking. As we have seen, in commercial banking alone is there a high degree of organization; where found at all in investment banking, it is confined to special parts of the field. Two alternatives are thus open as to the form which the organization of the investment banking system in relation to the commercial banking system may take. Its reserves may be either uncentralized, or they may be concentrated in the central reserve holder for the commercial banking sstem, which in fact is the case when such organization of the commercial banking system prevails. Were it desired to employ these investment banking reserves *per se*, funding, as we have seen, would be regarded as necessary, but this would serve to introduce another and different operating principle in the conduct of the affairs of the central reserve holder. Its business would then appear rather heterogeneous, and in fact this combination is not found in existence today. Thus the reserves of the investment banking system are concen-

[10] As remarked in Ch. VI, Section 4, the problem concerns funds available outside the banking system as well as within.

trated in the central reserve holder for the commercial banking system, and do not perform directly their basic function. The Federal Reserve banks hold the reserves of member banks (13, 10, and 7 per cent) against inactive demand deposits which are practically of investment nature, and the 3 per cent reserves against time deposits, yet these funds may not be applied directly for investment use.[11] Objectively viewed, they appear to represent rather an application of the "available fund" theory of reserves considered above, investment banking thus possessing certain deposit credits on the books of the commercial system, against which there is as offset loans made in the commercial sphere. In order to facilitate the operation of the investment banking system, investors thus supply to business enterprises part of the circulating capital which these enterprises require, and to this extent the commercial banking system loses the cooperative aspect which is one of its outstanding characteristics. It should be noted, however, that because of the conduct of both classes of banking by the same organization, the central reserves are available to it in the event of withdrawal of a deposit and non-curtailment of investments to correspond, through borrowing by means of its previous commercial loans, either in the form of rediscount with or bills payable to the central reserve holder. Assuming that the funds represented by the investment deposit withdrawn had been invested or loaned for a fixed purpose, the offset to this investment or loan must be a part of the investment reserves possessed by the central reserve holder, while at the same time the demand deposits of the individual bank obtaining the accommodation act as offset to its former commercial loans, which are now in the possession of the central reserve holder.[12] The extent to which this may be done is thus

[11] Abstraction is made in the discussion which follows from loans on United States government obligations.

limited to the amount of investment reserves, although through misjudgment, here as in other parts of banking, this limit may be exceeded. This method of utilization of the reserves of course requires that a sufficient amount of commercial paper acceptable to the central reserve holder be in the hands of the individual bank; but, viewing the system as a whole, and the small proportion of total deposits concentrated in the reserve holding organization, it would appear that no difficulty should be experienced. In actual practice, then, the reserves are centralized in the commercial banking system. The central reserve holder exercises control over the process as a whole, but, due to the indirect access to the investment reserves which is permitted, control over the apportionment of funds to the two uses is possible only insofar as there is direct ascertainment of the reasons underlying the request for accommodation by the individual bank, and direct refusal to accede to the request is made when deemed appropriate.

The view in general prevails that provision is made in this organization of reserves and method of operation for giving commercial financing priority over investment financing, i. e., for permitting such loans to be made to any extent desired, as against undertaking investment operations. As we have just seen, however, there is no royal road in the apportionment process, and the matter is entirely one of judgment on the part of individual bank and central reserve holder. But let us consider the current view at somewhat greater length. In the Federal Reserve system, priority for commercial financing would extend to the investment reserves, which would be available for application to commercial needs, and

[12] A similar analysis holds when borrowing from the central reserve holder occurs in order to make additional fixed loans or investments. Thus member banks are reported to have rediscounted with Federal Reserve banks and placed the proceeds in call loans in New York some time ago.

part of the circulating capital requirements of business enterprises supplied from the permanent capital of savers. By this means, the train of reasoning runs, a cardinal difficulty, namely overinvestment and sinking of capital in fixed as against circulating uses, is avoided. On the other hand, a limitation also exists to the process of granting accommodation for circulating uses. Within rough limits, more than a certain amount of circulating capital cannot be used in conjunction with a given amount of fixed capital. This balance, as it may be termed, between fixed and circulating capital, is rather a long run phenomenon, and represents one application of the general theory of economic equilibrium, as well as of what has been termed the law of proportionality, which represents the first method by which the equilibrium is effected. Other equilibria are also in process of establishment. Shifting to the real level of the analysis, the balance between fixed and circulating capital means a balance between the amount of goods (of whatever description) in process of manufacture, and the fixed capital equipment of society. The balance between the two kinds of capital is largely effected through changes in the two kinds of finished goods produced, namely those destined for use as final consumption goods and as finished active production goods, abstraction being made for this purpose from goods employed as passive production goods, which ultimately emerge from the economic process in one of the other two forms. This then requires a corresponding balance between saving and consumption, inasmuch as long continued investment operations calling for goods destined to serve as fixed capital will not be undertaken in the absence of a consumptive demand for the products of such capital goods,[13] and repre-

[13] This point has been indicated by Moulton, Commercial Banking and Capital Formation, IV, Journal of Political Economy, Vol. XXVI, 1918, pp. 853 ff., 879.

sents the second method in which the general equilibrium is effected.

The equilibrium, however, acts as a limiting factor in preventing excessive application of funds to fixed as against circulating uses, or, otherwise phrased, of overestimation of funds available in the investment as against the commercial sphere. A second limiting factor is seen in considering the operations of the individual bank as contrasted with the banking system as a whole, for it can ill afford to attempt to maintain a disproportion between the character of assets and liabilities in the form of an excess of active demand deposits over commercial loans, relying upon deposits of an investment nature found elsewhere in the banking system to offset its own investment operations.[14] In actual practice, the necessity for regular substitution of new commercial paper as maturities approach, will also act as a deterrent. As a corollary of the equilibria just mentioned, which exist in the business world, there arises for banking the possibility of controlling the volume of commercial operations through the control exercised over the volume of investment financing, and vice versa. Lack of extension of investment banking accommodation limits the volume of commercial transactions arising from such operations, and hence the demand by recipient enterprises for commercial banking accommodation, assuming that the capital received by such enterprises be employed for fixed purposes,[15] as well as the demand for commercial banking accommodation by further purchasers of the goods created with the original capital, while, on the other hand, limitation of commercial banking accommodation restricts employment of existing equipment and may

[14] The equilibrium thus acts as a limiting factor in connection with the similar problem which confronts the individual bank, considered in Ch. VI, Section 4.

[15] Cf. Moulton, Commercial Banking and Capital Formation, III, Journal of Political Economy, Vol. XXVI, 1918, p. 728.

well cause hesitancy in undertaking new fixed investment.

An additional mechanical aid exists for use in estimating the amount of funds available for investment and for commercial use, namely the requirement of departmentalization and segregation of time and savings deposits received by organizations which also conduct commercial banking operations. The limited applicability of this device will be evident from the above exposition, inasmuch as it does not include inactive demand deposits which are in the "twilight zone."

4. There are certain limitations upon the extent to which loan and investment operations may be engaged in, which become operative through the effect produced when attempt is made, wilfully and consciously, or otherwise, to disregard them. Differently pharased, there are forces which work to keep banking within the straight and narrow path. The traditional effect is that upon prices, which presents a twofold aspect, being either general, or confined instead to particular commodities. The first is related to estimation by the banking system of the total funds available, the second to selection from among applicants for accommodation. No attempt of course will be made to do more here than to sketch the principal features, and no theory of general prices is advanced,[16] it being sufficient for the purpose at hand to take the objective fact that a considerable increase in the

[16] The quantity theory by no means is assumed. The reasoning as to casual relations in the price fixing process, for example, might proceed broadly along the following line, employing an absolute concept of value: Credit is easier to obtain, hence the value of the individual unit (expressed in terms of and equal to the monetary unit), decreases, whereas the value of the individual unit of commodities remains unchanged. Or the fact of the employment of money in the purchase of commodities may be further introduced, and the argument explicitly carried to its logical conclusion, money thus declining in value relative to other commodities.

volume of the purchasing media, in the absence of increased business activity which does not result from placing these media in the hands of prospective purchasers, is accompanied by (and accompanies) some increase in general prices.[17] The conventional doctrine relative to the proper conduct of banking is to the effect that the total original extension of credit, both loans and investments, shall not be in excess of the available goods coming on the market, which,broadly, equals the deposit credits available. There is thus no bidding by the recipient of funds from the banking system against depositors who desire to convert their deposits into goods.[18] But the process of overestimation of the total funds available in general will be reflected more particularly in the accommodation extended to certain particular types of enterprises believed to be in a peculiarly favorable position. Overextension of credit in fact may be confined merely to certain particular classes of business activity, and general overextension (or overestimation) be entirely absent. Where this is the case rather than general overextension, in commercial banking the course of the prices of the commodities produced by the industries in question tends to be the reverse of the course of general prices in the event of general overextension, although the tendency may be submerged in a period of increasing business activity. Overextension in special industries, it should be noted, itself tends to an increase in general prices through the employment of the funds both in purchases of raw materials, etc., and in purchases by wage earners. In investment banking there is a similar effect, the prices of the capital goods required tending to increase, while the "price" of the enterprise itself tends to decrease.

[17] Although the entire matter may be regarded as a currency problem, we shall confine our attention primarily to price changes in their relation to banking.

[18] The problem thus is seen to involve also the activity of accounts.

Overestimation of the total funds available may be of several kinds. It may occur in both commercial and investment spheres, or merely in either one, and, due to the structural combination of classes of business remarked in the preceding section, may appear to show attempted encroachment by the investment banking system upon funds properly belonging to the commercial banking system.[19] Due to the difference in relative permanence of application of capital in the two spheres, there is an important difference in the flexibility of adjustment to decrease in the total volume of funds available. Assuming neither general nor widespread price revulsion, nor misjudgment in the particular loan operations, with commercial banking readjustment in the event of what appears to be a too heavy extension of original loans in certain particular lines may be effected through curtailment of loan operations as existing loans are repaid. In the case of investment banking, however, the situation is not so simple. The nearest approach to that prevailing in the case of commercial banking is afforded by the employment of the loan upon securities, where the borrower when the loan is due is forced to obtain elsewhere capital sufficient to carry the securities in question, the same ultimately being either new saved capital or deposits on the books of the banking system, in the first of which cases obviously is the discrepancy alone remedied between the purchasing media and goods. The course of prices may also be influenced in another manner in the case of investment banking. Assume that the original extension of credit was not excessive, and that some depositors later desire to employ their deposits; in other words, that there is a decrease in the volume of savings held in the investment banking system. In the case

[19] It should be observed that the tendency towards equilibrium between the capital employed in each sphere noted in the preceding section represents basically a long run tendency.

of a direct loan to a business enterprise, there is no liquidating counter flow of goods, and the present holders of the deposit credits originally representing the loan bid for the available goods coming on the market against the other depositors desiring to convert their deposit credits into goods. In the case of the loan on or direct holding of securities, however, no such effect is produced for that part of the amount which is employed as circulating capital by the enterprise whose securities are represented. The amount of the counter flow of goods produced by the enterprise goes to swell its deposit account, providing an offset against existing investments of the banking system; cancellation is not effected, but the deposit account is increased to bring about the desired correspondence.[20]

In short, misjudgment by the banking system carries in its wake certain effects upon prices. Certain features of war finance as lately practised in the United States show the same effects very clearly with regard to general prices, although it should not be forgotten that in this case there is a strong tendency either to disregard these effects entirely on the ground of expediency, or else to hold that they contribute to a desirable result. The accommodation granted Government may take the form either of purchase of treasury certificates by the banking system, purchase of bonds, or loans to individuals to enable purchase of bonds. In the

[20] This statement holds true also for the profits resulting from the "investment," no matter which of the three forms thereof be employed, increase likewise occurring in both the volume of goods and in the deposit account. For the individual bank, in the case of loan upon or direct holding of securities, it is obvious that the matter of immediate concern will be the course of the prices of such securities, the relation of which to the course of commodity prices will be apparent. It will be remarked that investment banking operations, through this influence upon commodity prices, affect commercial banking operations as well.

absence of a clear-cut theory of the spheres and relations of commercial banking and investment banking, it may appear that the first and third of these may be undertaken by the commercial banking system, inasmuch as the obligations to the banking system will run for relatively short periods of time. This holds true only if the terms be considered in the structural sense; basically an investment operation is involved. Not only are such operations not of commercial nature, but the certificates in fact may not be floated merely in anticipation of receipts from tax or bond issues, but may be kept out continuously, while with bond issues twice a year, loans to bond purchasers may be of six months' duration. The reputed liquid character of such obligations in fact is delusive. In all three cases it is possible satisfactorily to extend such accommodation only to the extent that inactive demand and time deposits are available, including herein such funds as business enterprises had designed to employ as circulating capital in their own operations, but which they are forced to relinquish for a greater or lesser period of time.[21] It should be noted, however, that the time of extension of accommodation in actual fact does not correspond with the ostensible time of extension, but rather with the time of actual employment in purchasing. The price effects attendant upon the late methods of war finance are now well understood. The underlying theory has been carefully elaborated in the discussion of inflation in relation to war finance which has taken place, in particular in connection with the controversy as to the proper proportion of receipts from loans and from taxes, and there is substantial agreement along the lines just indicated.[22] From the point of view of Government expediency, these price effects

[21] To this end credit may be rationed and capital issues supervised.

[22] Cf., e.g., Scott, Bond Issues and the Money Market, in Financial Mobilization for War, Chicago, 1917, pp. 126-136, cited

have certain desirable consequences, in that they tend to force restriction of purchasing for private needs.[23] Turning to the real level of the analysis, they thus induce a change in the relative production of various classes of commodities, contributing to the diversion of part of society to the production of goods required by Government. New goods required by Government are produced, part of the supplies of other commodities required both for Government and for private use are diverted to the former, and the production of commodities purely for private use is curtailed.

5. The problem of estimation which confronts the banking system in its practical operations is complicated by the dynamic character of modern industry, and the existence of the business cycle, conditioned in large part by events of a non-banking nature. Coincident with the rythmic rise and fall of busines activity is the movement of prices, both general and for special commodities. While the banking system to a considerable extent may influence the course of activity as indicated above, yet to a greater extent it must merely adapt itself to the course of the cycle; it serves rather as contributor thereto than controller thereof. According to its skill or lack of skill in judgment, it thus on the one hand may directly bring about a general price revulsion, may hasten its advent, or may accelerate its course. Similarly

in Hollander, War Borrowing, New York, 1919, p. 159. It is a mistake, however, to hold that "to the extent that loans are made ultimately from future savings there need be no inflation," inasmuch as price effects may be induced prior to the actual saving. Banking extension of accommodation to Government serves merely to advance the date at which control over the capital is given it, and the capital must actually exist.

[23] The inverse relation should be noted which obtains within certain limits between the price level and the rate of interest at which Government bonds are floated. Very roughly, the lower the rate the greater the necessity for banking accommodation and the higher the price level.

with the prices of individual commodities, which, as remarked above, it at once tends, however, to decrease rather than first to increase, as in the case of general prices. In both these connections, it may operate in the reverse manner as well, serving rather in part to stem and to direct the tide of the business cycle. On the other hand, more largely will it itself rather drift with the tide, and its constructive activity be confined rather to this process of adaptation, both to the existing and future situation. Where it fails in its judgment in this process it will fall a victim to price revulsion, whether general or for special commodities only, just as surely as where it itself largely contributes to such price changes. As indicated above, the difficulty in which it finds itself may arise in a variety of ways,—through "overlending" to given types of enterprise, as well as through general overestimation of funds available and consequent general overextension, each of which may occur in either commercial or investment spheres, or in both spheres. Included herein is overextension of accommodation for investment purposes by organizations which are engaged primarily in commercial banking, the one use then apparently encroaching on funds destined for the other purpose. While emphasis is customarily placed upon this danger, it represents rather one of several ways in which difficulty may arise. The important fact is that in neither case is liquidation possible on the existing basis, the commodities represented by the commercial loan being "frozen" at the prices on which the loan was made as effectively as if the funds had been applied in the investment sphere.

There is nothing whatsoever in the theory of commercial banking and the theory of investment banking expounded in the present work which is incompatible with the best existing thought relative to the business cycle.[24] The theory of

[24] E.g., Mitchell, Business Cycles, Berkeley, 1913.

commercial banking by no means should remain in the rudimentary form developed by the classical economists, but should be adapted to conform with the changes wrought by changed economic conditions upon the evolution of the institution itself. A conspicuous example of such change is the growth in technologic processes and in the complexity of market organization, and the corresponding change in the organization of productive activity. The act and test of liquidation upon which prior operations in the intermediate stages are predicated are now postponed until the final stage in the economic process. But this by no means requires total abandonment of the theory itself. Nor does the technical method of management of an acute situation in the business world, which Moulton instances, invalidate our theory.[25] Granted that free lending by banks may be desirable in times of crisis, this means merely that at such times liquidation is deferred in order not to throw simultaneously upon the market an excessive volume of commodities, with the resultant effects upon prices and upon public confidence. A more gradual process is adopted, readjustment being merely postponed, but not prevented. The conception of alchemy no longer survives; neither here nor elsewhere is it possible to "make something out of nothing." Again, the employment of clearing house loan certificates in the past in American banking represents merely a device whereby, in the absence of effective technical organization of the banking system, funds are obtained in time of crisis.

We see then that in the last analysis the degree of effectiveness of operation of the banking system is the resultant of two factors; the skill of the bankers, and the technique which has been developed. The first involves discrimination on the part both of individual bankers and of those who

[25] Commercial Banking and Capital Formation, IV, Journal of Political Economy, Vol. XXVI, 1918, p. 726.

operate the central bank. In particular does this hold for the central bankers with respect to technical operations such as distribution of funds between different places and lines of enterprise, the control and leadership which is exercised, and the foresight shown. While greater breadth of vision is possible on the part of the central bankers, the individual bankers, who are far closer to the business community, must likewise do their share. But neither group will perform its duty in fullest measure in the absence of a highly developed technique. This involves on the one hand the mechanism for performing the various technical operations, and obtaining both coordination and control within the system. The need for skill on the part of the banker in employing the delicate scientific devices which have been developed is obvious. On the other hand, the mechanism must be supported by a clear understanding of the underlying theory with respect to the significance of the institution itself as well as to its operating methods. Only when the banking community is thus equipped will the institution of banking function effectively.